

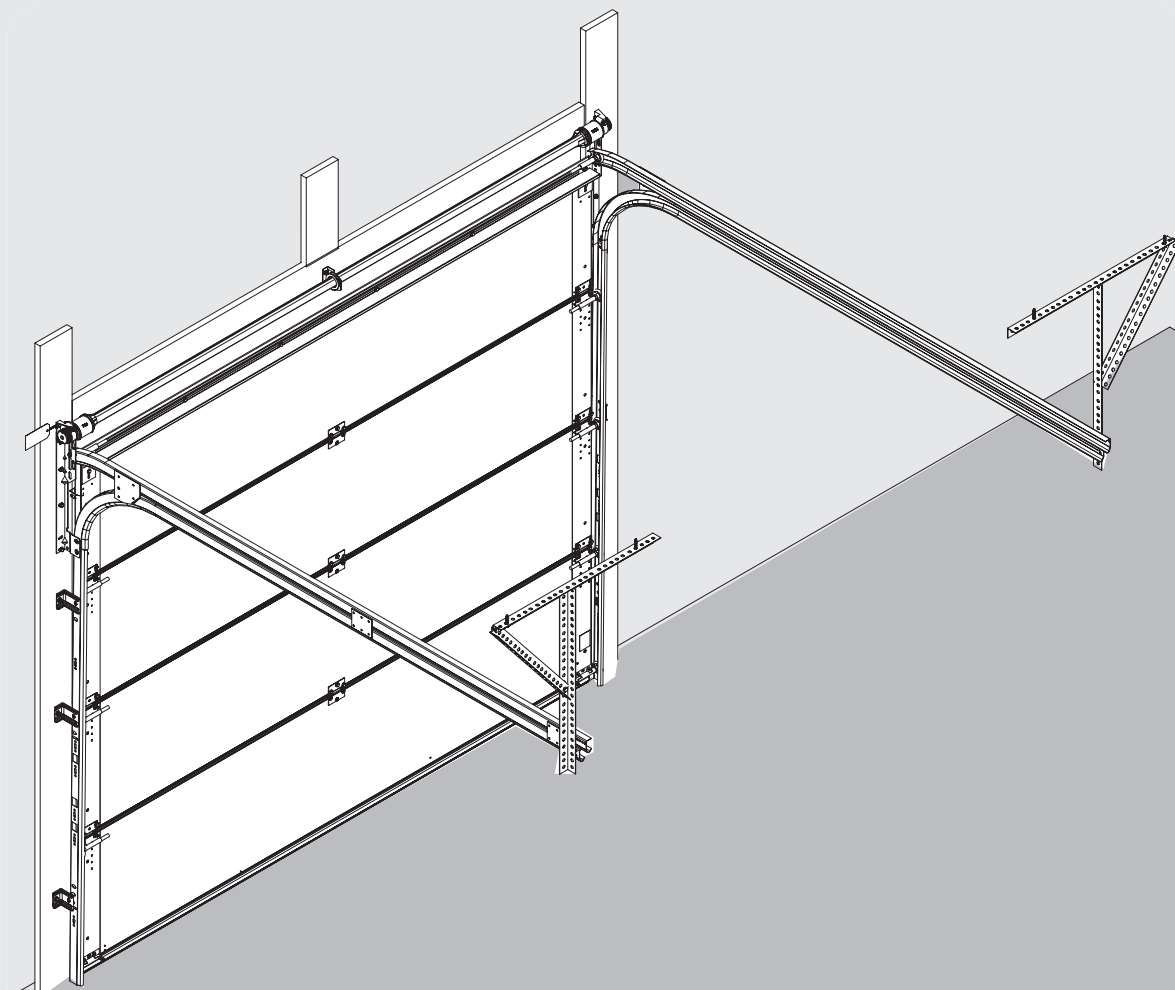


9800 Series - 4 Section

Low Head Room Front Mount

TorqueMaster® - Single and Double Spring

Installation Instructions and Owner's Manual



Wayne-Dalton, a Division of
Overhead Door Corporation
P.O. Box 67, Mt. Hope, OH 44660
www.Wayne-Dalton.com

IMPORTANT NOTICE!

Read these instructions carefully before attempting installation. If in question about any of the procedures, do not perform the work. Instead, have a qualified door agency do the installation or repairs.

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Definition of key words used in this manual:


WARNING

INDICATES A POTENTIALLY HAZARDOUS SITUATION WHICH, IF NOT AVOIDED, COULD RESULT IN SEVERE OR FATAL INJURY.

CAUTION: PROPERTY DAMAGE OR INJURY CAN RESULT FROM FAILURE TO FOLLOW INSTRUCTIONS.

IMPORTANT: REQUIRED STEP FOR SAFE AND PROPER DOOR OPERATION.

NOTE: Information assuring proper installation of the door.

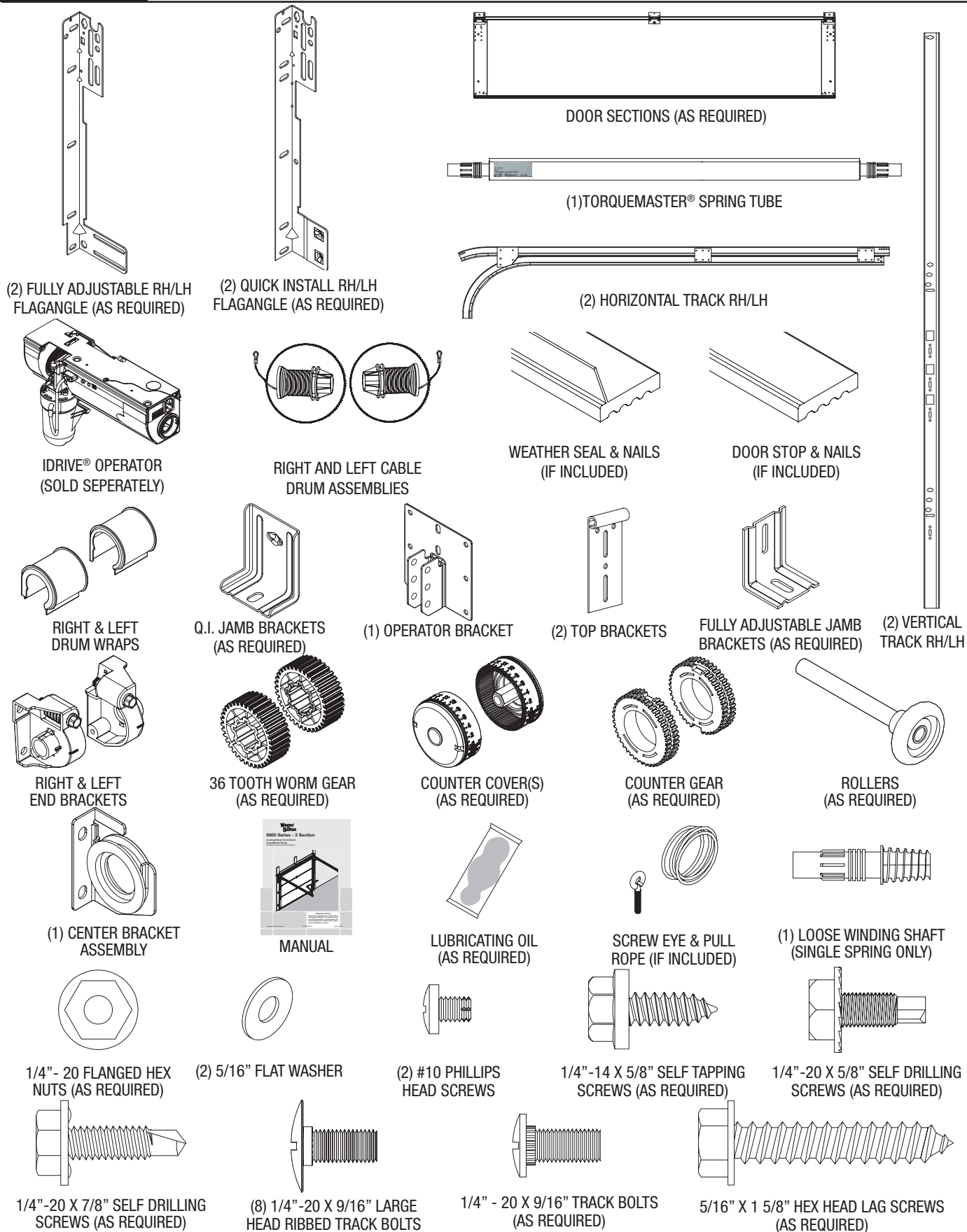
 WARNING TO AVOID POSSIBLE INJURY, READ THESE INSTRUCTIONS CAREFULLY BEFORE ATTEMPTING INSTALLATION. IF IN QUESTION ABOUT ANY OF THE PROCEDURES, DO NOT PERFORM THE WORK. INSTEAD, HAVE A QUALIFIED DOOR AGENCY DO THE INSTALLATION OR REPAIRS.

1. **READ AND FOLLOW ALL INSTALLATION INSTRUCTIONS.**
2. Wear protective gloves during installation to avoid possible cuts from sharp metal edges.
3. It is always recommended to wear eye protection when using tools, otherwise eye injury could result.
4. Avoid installing your new door on windy days. Door could fall during the installation causing severe or fatal injury.
5. Doors 12' - 0" wide and over should be installed by two persons, to avoid possible injury.
6. Operate door **ONLY** when it is properly adjusted and free from obstructions.
7. If a door becomes hard to operate, inoperative or is damaged, immediately have necessary adjustments and/or repairs made by a trained door system technician using proper tools and instructions.
8. **DO NOT** stand or walk under a moving door, or permit anybody to stand or walk under an electrically operated door.
9. **DO NOT** place fingers or hands into open section joints when closing a door. Use lift handles/gripping points when operating door manually.
10. **DO NOT** permit children to operate garage door or door controls. Severe or fatal injury could result, should the child become entrapped between the door and the floor.
11. Due to constant extreme spring tension, **DO NOT** attempt any adjustment, repair or alteration to any part of the door, especially to springs, spring brackets, bottom corner brackets, red colored fasteners, cables or supports. To avoid possible severe or fatal injury, have any such work performed by a trained door systems technician using proper tools and instructions.
12. On electrically operated doors, pull down ropes must be removed and locks must be removed or made inoperative in the open (unlocked) position.
13. Top section of door may need to be reinforced when attaching an electric opener. Check door and/or opener manufacturer's instructions.
14. **VISUALLY** inspect door and hardware monthly for worn and or broken parts. Check to ensure door operates freely.
15. Test electric opener's safety features monthly, following opener manufacturer's instructions.
16. **NEVER** hang tools, bicycles, hoses, clothing or anything else from horizontal tracks. Track systems are not intended or designed to support extra weight.

After installation is complete, fasten this manual near garage door.

Package Contents

NOTE: DEPENDING ON THE DOOR MODEL, SOME PARTS LISTED WILL NOT BE SUPPLIED IF NOT NECESSARY. REAR SUPPORTS MAY OR MAY NOT BE INCLUDED WITH YOUR DOOR.



Please Do Not Return This Product To The Store. Contact your local Wayne-Dalton dealer. To find your local Wayne-Dalton dealer, refer to your local 3 yellow pages business listings or go to the Find a Dealer section **online at www.Wayne-Dalton.com**

Door Section Identification

Tools Needed:

NOTE: This provides an alternative method for identifying your door sections/stacking position.

Hinges are always pre-attached at the top of each section (except top section) and the hinges are stamped for identification, #1, #2, #3, and #4 (#4 only on five section doors). The stamp identifies the stacking sequence of the section. The sequence is always determined by #1 being the bottom section to #3 or #4 being the highest intermediate section. See views to the right. If the stamp on the end hinge is illegible, refer to the section side view illustration to the right.

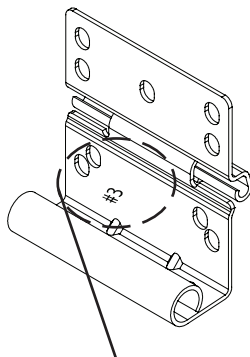
The section side view illustration shows the end hinge profile of all the sections, and can also be used in conjunction with identifying each sections.

The **BOTTOM SECTION** can be identified by #1 end hinges, the factory attached bottom astragal and by the bottom bracket warning labels on each end stile.

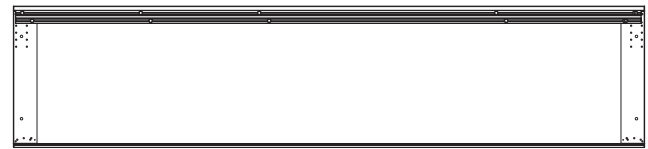
The **LOCK SECTION** can be identified by a #2 end hinge.

The **INTERMEDIATE SECTION** can be identified by #3 end hinges. The section will have a warning label attached to either the right or left hand end stile.
NOTE: #4 End hinges are used on the fourth section of five section doors.

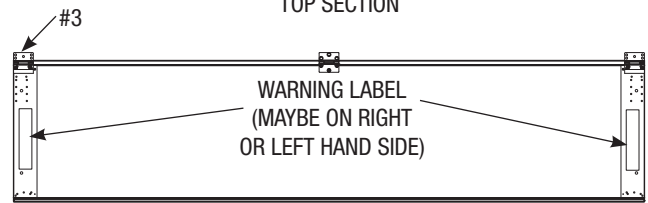
The **TOP SECTION** can be identified by the pre-attached u-bar and no pre-installed end or center hinges on the section.



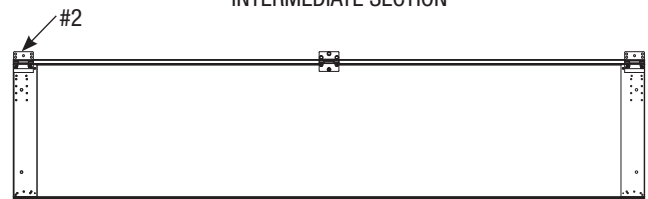
TYPICAL HINGE STAMPING LOCATION



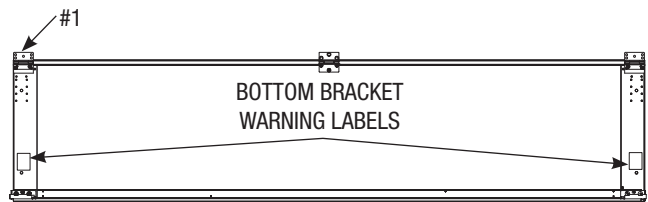
TOP SECTION



INTERMEDIATE SECTION



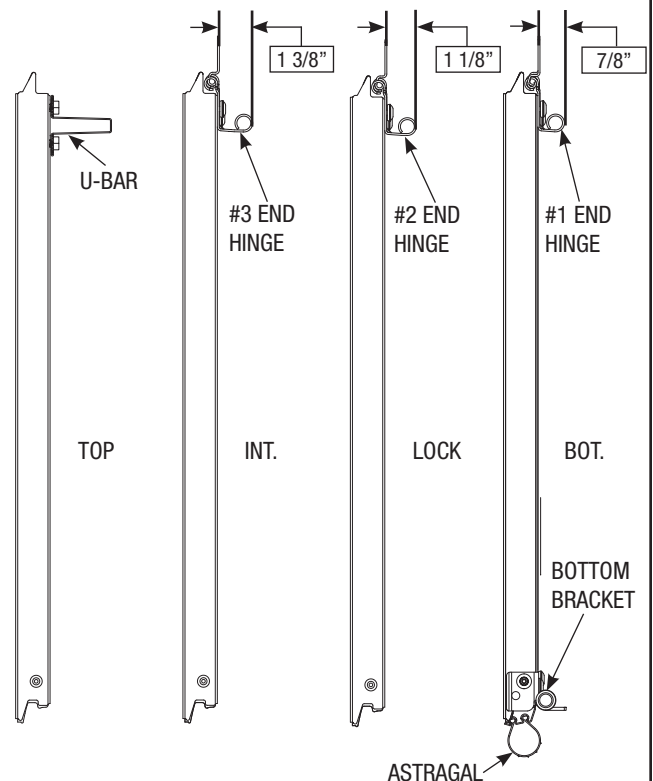
LOCK SECTION



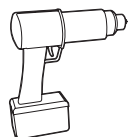
BOTTOM SECTION

ASTRAGAL

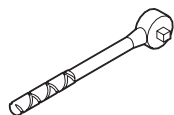
SECTION SIDE VIEW



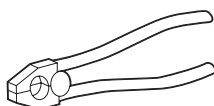
Tools Required



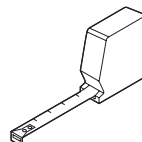
POWER DRILL



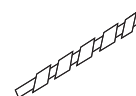
RATCHET WRENCH



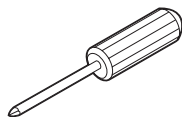
PLIERS/WIRE CUTTERS



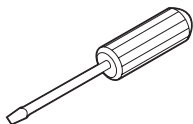
TAPE MEASURE



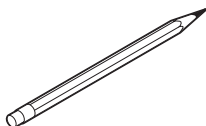
1/8", 3/16" DRILL BITS



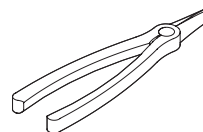
PHILLIPS HEAD SCREWDRIVER



FLAT TIP SCREWDRIVER



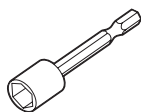
PENCIL



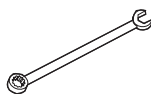
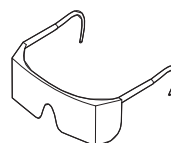
NEEDLE NOSE PLIERS



GLOVES

7/16", 1/2", 9/16"
SOCKETS

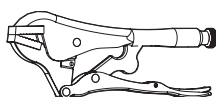
7/16" SOCKET DRIVER

7/16", 1/2", 3/8", 9/16"
WRENCHES

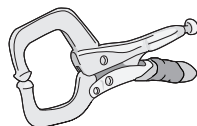
SAFETY GLASSES



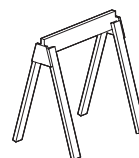
HAMMER



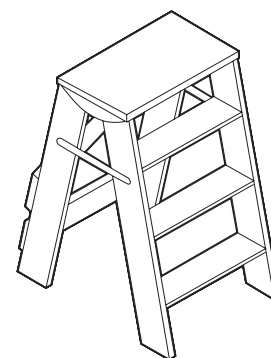
VICE GRIPS



VICE CLAMPS



SAW HORSES (PAIR)



STEP LADDER

Removing An Old Door

⚠ WARNING

IF YOUR COUNTERBALANCE SYSTEM IS OTHER THAN THOSE MENTIONED IN SECTIONS P1, P2 AND P3, DO NOT ATTEMPT TO WORK ON IT, BUT HAVE A QUALIFIED DOOR AGENCY PERFORM THE WORK. OTHERWISE, SEVERE OR FATAL INJURY COULD RESULT.

⚠ WARNING

DISCONNECT AND REMOVE ANY ELECTRIC OPENER PRIOR TO REMOVAL OF COUNTERBALANCE SYSTEMS TO PREVENT UNINTENDED DOOR OPERATION. OTHERWISE, SEVERE OR FATAL INJURY COULD RESULT.

⚠ WARNING

COUNTERBALANCE SPRING TENSION MUST BE RELIEVED BEFORE REMOVING ANY HARDWARE. A POWERFUL SPRING RELEASING IT'S ENERGY SUDDENLY CAN CAUSE SEVERE OR FATAL INJURY.

⚠ WARNING

IF YOU HAVE BACK PROBLEMS DO NOT ATTEMPT THIS, OR SEVERE INJURY COULD RESULT

⚠ WARNING

REMOVING AN EXISTING DOOR CAN BE DANGEROUS. FOLLOW INSTRUCTIONS ON PAGES 6-10 "REMOVING AN OLD DOOR/PREPARING THE OPENING" CAREFULLY, OTHERWISE, SEVERE OR FATAL INJURY COULD RESULT.

If you have an existing door, follow the instructions to identify which counterbalance removal is necessary. The process of removing an existing door begins by identifying it's counterbalance system. If you are not removing an existing door, proceed to PREPARING THE OPENING on page 10. Generally, you will find three (3) types of counterbalance systems: Torsion spring counterbalance systems, Wayne-Dalton® exclusive TorqueMaster® and Extension Spring counterbalance systems.

For more technical information regarding the opening preparation, installation and use of your garage door and opener, you can go to www.dasma.com and click on Publications and then Technical Data Sheets Number 156, 161 and 164.

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P1

Torsion Spring Removal For Standard Lift

Tools Needed:

Approved
Winding Bars

3/8" Wrench

(2) Vice Clamps

Recommended
tools from
page 5

WARNING

FAILURE TO USE APPROVED WINDING BARS CAN CAUSE SPRING ENERGY TO BE RELEASED SUDDENLY, RESULTING IN SEVERE OR FATAL INJURY.

WARNING

COUNTERBALANCE SPRING TENSION MUST BE RELIEVED BEFORE REMOVING ANY HARDWARE. A POWERFUL SPRING RELEASING ITS ENERGY SUDDENLY CAN CAUSE SEVERE OR FATAL INJURY.

Do not release the torsion spring tension unless you are a qualified and experienced door technician. Instead have a professional door agency release the tension.

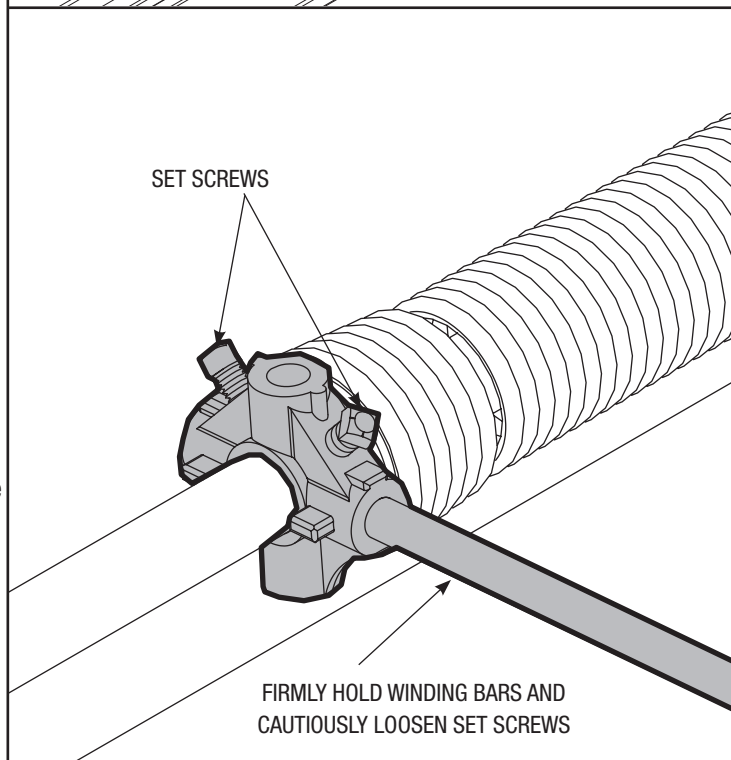
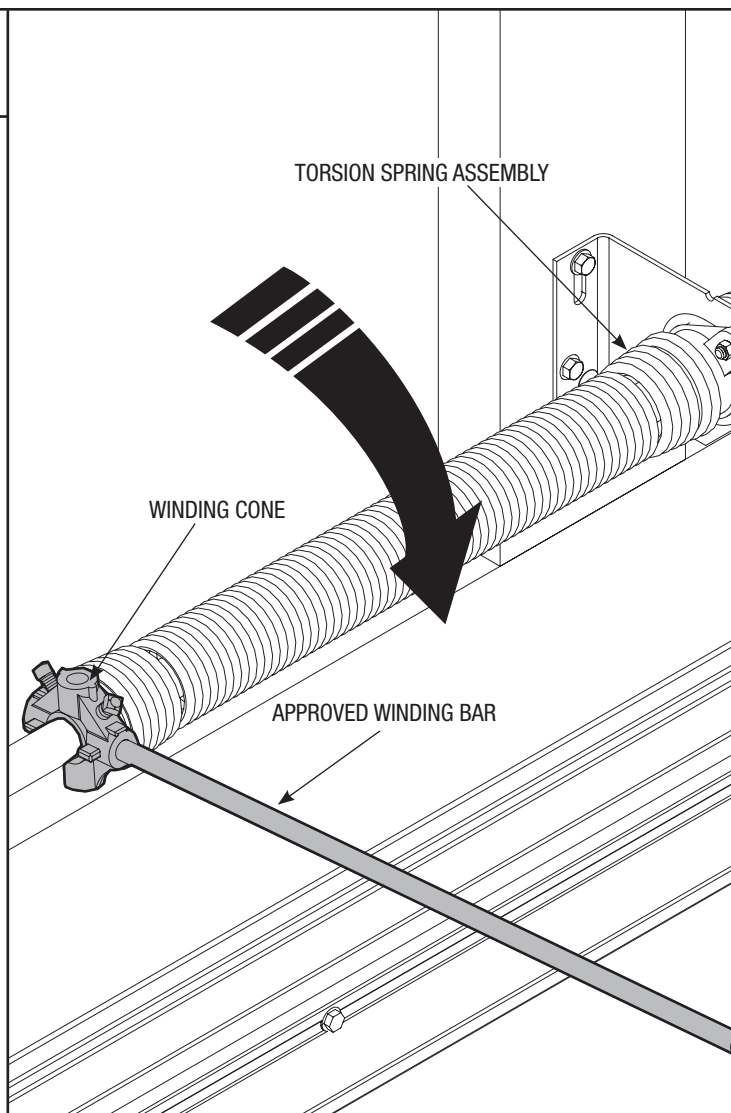
Step 1: Close the door and place vice clamps on the back legs of both vertical tracks, above the third roller to prevent the door from lifting as you unwind the springs. Use only approved winding bars available from your dealer. Do not use undersized steel rods, screw drivers or anything else to unwind the springs. Position the ladder just off to the side of the winding cone. The winding cone should be easy to reach without putting your body directly in front of it.

Step 2: Insert a winding bar into one of the holes in the winding cone. Exert upward pressure. Using caution, loosen the two (2) set screws in the winding cone. Be prepared to support the full torsional force of the spring when the set screws are loosened.

Step 3: Once set screws are loose, slowly and carefully lower the winding rod until it rests against the door. Insert other winding bar into the upper hole. Push up and remove lower bar. Carefully lower upper winding bar, 1/4 turns at a time until it rests against the door. Repeat process until all tension is relieved. If your door is equipped with two (2) torsion springs, follow the same procedure to relieve tension on the second spring.

Step 4: Remove vice clamps from tracks, unbolt torsion shaft assembly and remove from work area.

NOTE: Continue with "P4" on page 9 after completing this step.



P2

TorqueMaster® Spring Removal

Tools Needed:

Recommended tools from page 5

A TorqueMaster® spring system can be identified by the end brackets. For single spring applications, the right hand end bracket will always have a drive gear, counter gear, counter cover, and a winding bolt head. The left hand end bracket will have no gears, counter cover, or winding bolt head. The hole for the winding bolt head will be plugged.

For double springs, both the right hand and left hand end brackets will always have a drive gear, counter gear, counter cover and a winding bolt head.

IMPORTANT: RIGHT AND LEFT HAND IS ALWAYS DETERMINED FROM INSIDE THE BUILDING LOOKING OUT.

Step 1: If you have a black counter cover: Place a mark on the drive gear tooth and an adjacent mark on the right hand end bracket (Fig. 1). Loosen the lock nut using a 7/16" wrench and continue with step 2.

If you have a gray counter cover: Loosen the lock nut using a 7/16" wrench and continue with step 2.

Step 2: Using an electric drill (High torque / gear reduced to 1300 rpm preferred) with a 7/16" hex head driver, unwind the right hand winding bolt head counterclockwise (Fig. 2) and count the number of turns the mark on the drive gear passes the adjacent mark on the end bracket. Referencing the chart below, by door height, stop unwinding the spring once the counted turns have reached the listed number of turns.

6'-0"	Door Height = 14 turns
6'-3"	Door Height = 14 1/2 turns
6'-5"	Door Height = 15 turns
6'-6"	Door Height = 15 turns
6'-8"	Door Height = 15 1/2 turns
6'-9"	Door Height = 15 1/2 turns
7'-0"	Door Height = 16 turns
7'-3"	Door Height = 16 1/2 turns
7'-6"	Door Height = 17 turns
7'-9"	Door Height = 17 1/2 turns
8'-0"	Door Height = 18 turns

CAUTION: DO NOT USE IMPACT GUN TO UNWIND SPRINGS.

IMPORTANT: DO NOT REFERENCE THE COUNTER COVER WHEN COUNTING THE NUMBER OF TURNS BEING UNWOUND ON THE SPRING, BUT FOLLOW THE INSTRUCTIONS ABOVE.

Step 3: Verify that spring tension has been released by pulling the counterbalance cable on the right hand cable drum away from the header (Fig. 3). If spring tension has been released, the cable will be loose. In addition, the TorqueMaster® Spring Tube should be free to rotate in either direction.

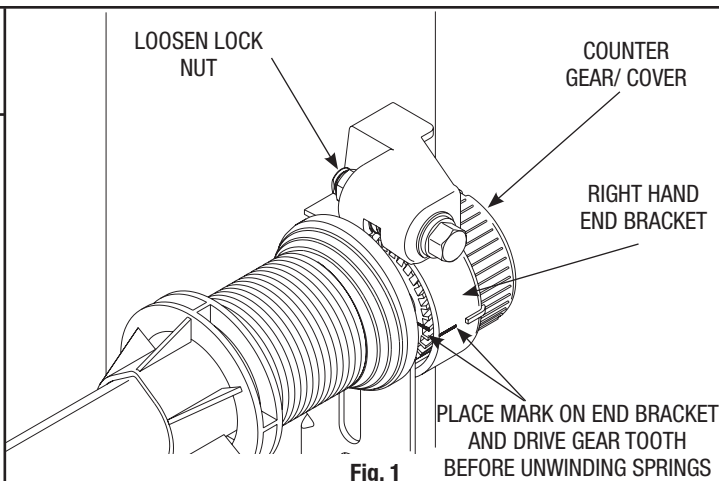


Fig. 1

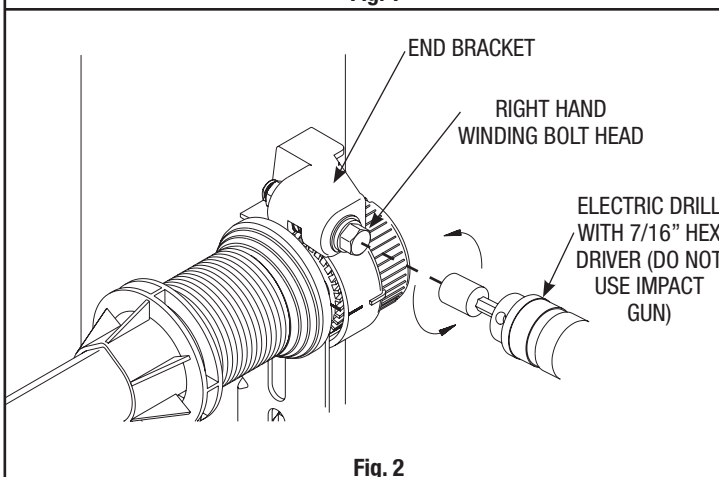


Fig. 2

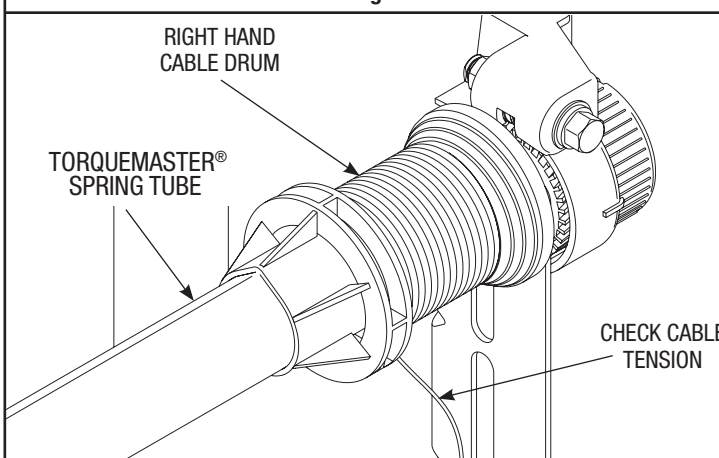


Fig. 3

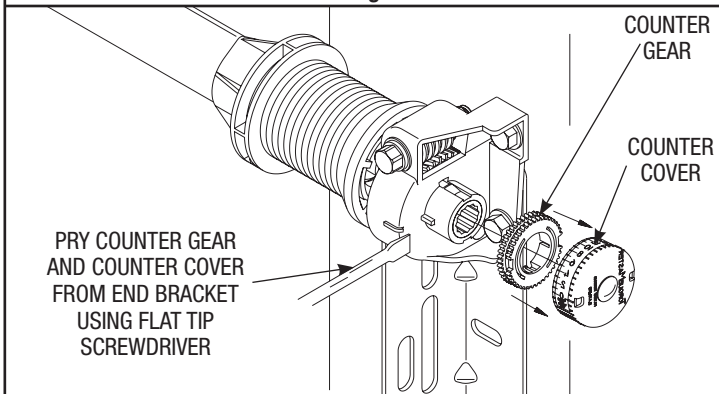


Fig. 4

TorqueMaster® Spring Removal continued...

Tools Needed:

Recommended tools from page 5

(Spring Tube should be free to rotate in either direction.) If the counterbalance cable is still taut and the TorqueMaster® Spring Tube is difficult to rotate, that is an indication that spring tension still exists on the left hand spring. Repeat Steps 1 and 2 for releasing spring tension on the left hand side.

Step 4: Using a flat tip screwdriver, pry the counter gear and counter cover from the right hand end bracket (Fig. 4 on previous page). Discard the counter gear and counter cover. On double spring applications, repeat for left hand side.

Step 5: Remove the upper 5/16" x 1-5/8" lag screw from the right hand end bracket (Fig. 5). Attach locking pliers to the upper portion of the end bracket and hold the housing steady while removing the lower 5/16" x 1-5/8" lag screw and #10 x 1/2" phillips head screw from the end bracket (Fig. 6).

Step 6: Holding the right hand end bracket steady with locking pliers, carefully pry the end bracket and drive gear off the winding shaft using a flat tip screwdriver (Fig. 7).

CAUTION: THE WINDING SHAFT MAY ROTATE WHEN REMOVING THE END BRACKET AND DRIVE GEAR.

Step 7: Repeat Step 4 for the left hand side. Holding the left hand end bracket steady with locking pliers, carefully pry the end bracket off the winding shaft using a flat tip screwdriver (Fig. 7).

Step 8: Remove the two (2) lag bolts attaching the center bracket assembly to the header board (Fig. 8).

Step 9: Lift the right hand side of the TorqueMaster® Spring Tube and slide the cable drum off. Realign the groove in the winding shaft with the radial notch in the flagangle and drape the counterbalance cable with drum over the flagangle. Lift the left hand side of the TorqueMaster® Spring Tube and slide the cable drum and winding shaft off (Fig. 9). Drape the counterbalance cable with drum over the flagangle. Lift the TorqueMaster® spring assembly off the flagangles and out of the doorway. Unhook the counterbalance cables from the bottom brackets and remove all parts from the work area.

NOTE: The cable drums may be difficult to remove. If so, twist the cable drum to aid in removal.

NOTE: Continue with "P4" on page 9 after completing this step.

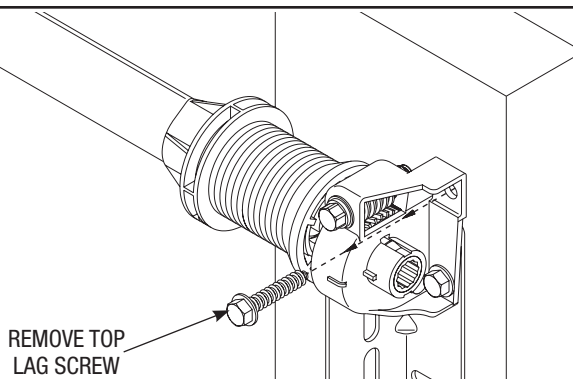


Fig. 5

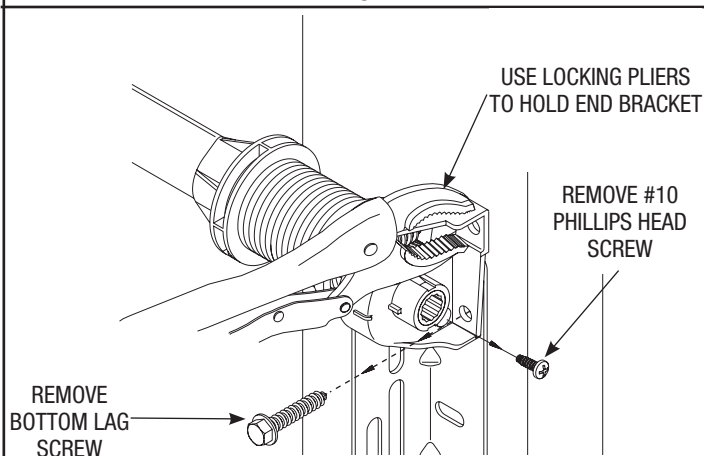


Fig. 6

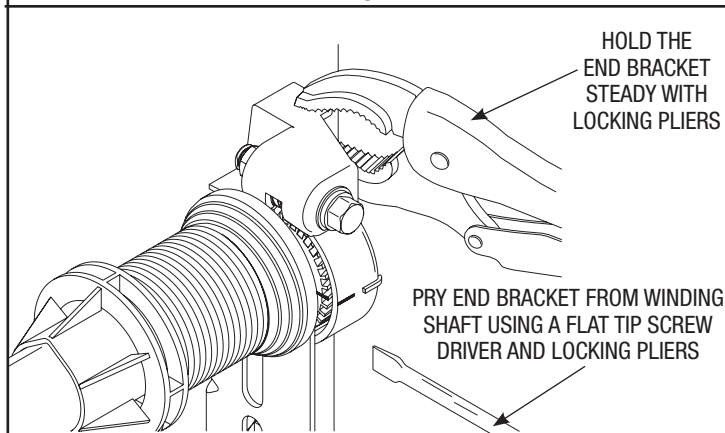


Fig. 7

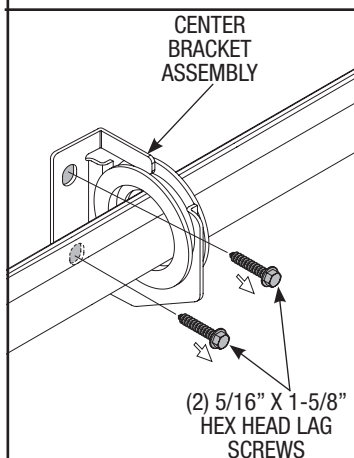


Fig. 8

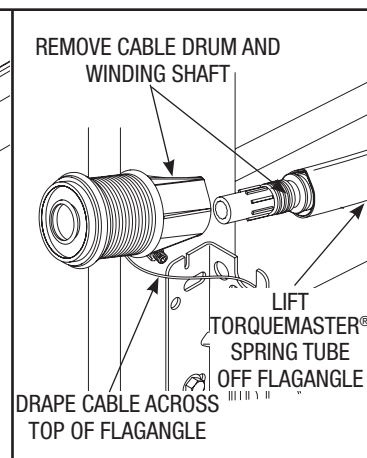


Fig. 9

P3

Extension Spring Removal

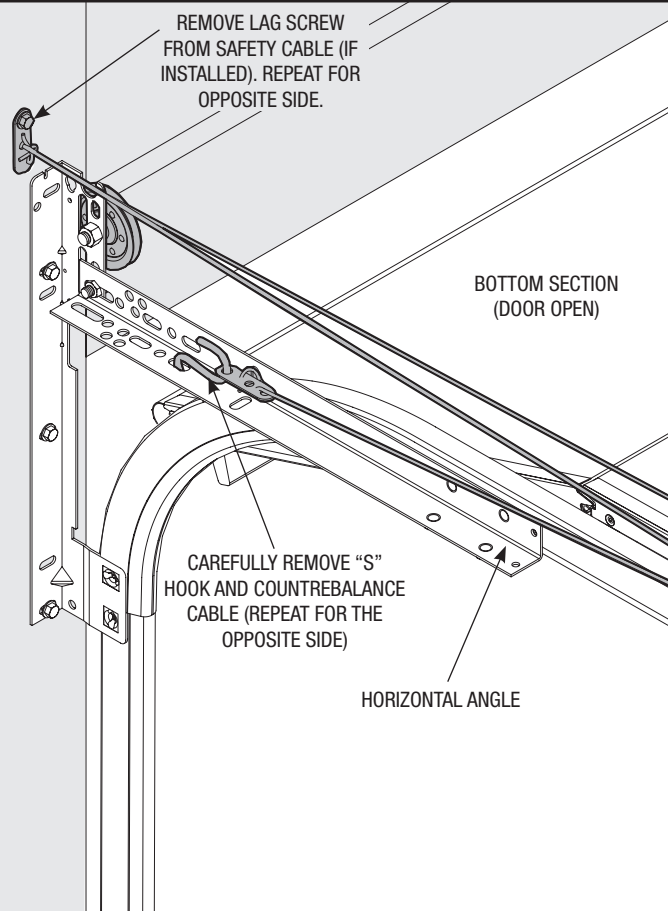
Tools Needed:
Recommended
tools from
page 5

Step 1: Raise the door to the fully open position and place vice clamps to the back legs of both vertical tracks, below the bottom rollers to prevent the door from falling. By opening the door you release most of the spring tension. Carefully unfasten the S-hook from the horizontal angle. Remove cable, sheave and extension spring. Repeat for the other side. If safety cables are running through the extension springs, remove them also. Remove parts from work area.

Step 2: Holding door in the open position, remove the vice clamps, be prepared to support the entire weight of the door. Garage doors can weigh 200-400 pounds.

With assistance, carefully lower the door, by grasping the door firmly by it's lift handles. Do not place fingers or hands near joints, between sections, or between bottom of door and floor. Otherwise, severe injury could result.

NOTE: Continue with "P4" on page 9 after completing this step.



P4

Removing the Old Door

Tools Needed:
Recommended
tools from
page 5

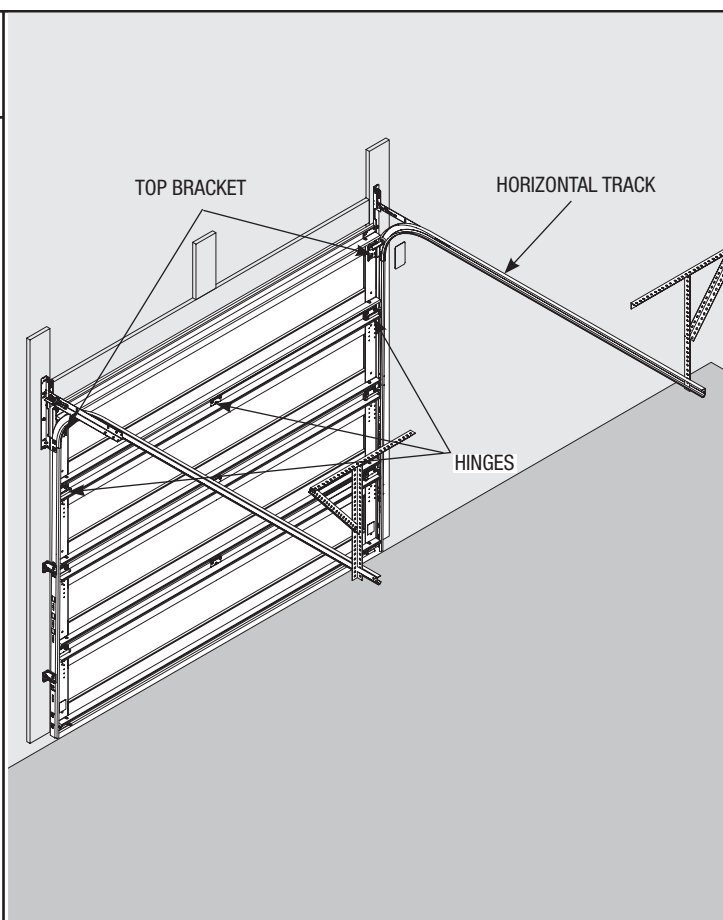
Having removed the counterbalance system, the door can now be disassembled.

Start by first removing the top row of hinges.

With assistance, hold the top section to keep it from falling and remove the top brackets. With assistance, lift the top section out of the opening and remove it from the work area. Repeat for all remaining sections.

After door is disassembled, unbolt both track assemblies from the jambs and remove all material from the work area. You can neatly dispose of the old door by placing it in the carton of your new door.

Clean up area and complete "Preparing the Opening" "P5" on page 10 before installing the new door.



P5

Preparing the Opening

Tools Needed:
Recommended
tools from
page 5

If you just removed your existing door or you are installing a new door, complete all steps in PREPARING THE OPENING.

To ensure secure mounting of track brackets, side and center brackets, or steel angles to new or retro-fit construction, it is recommended to follow the procedures outlined in DASMA Technical Data Sheets #156, #161 and #164 at www.dasma.com.

The inside perimeter of your garage door opening should be framed with wood jamb and header material. The jambs and header must be securely fastened to sound framing members. It is recommended that 2" x 6" lumber be used. The jambs must be plumb and the header level. The jambs should extend a minimum of 12" (305 mm) above the top of the opening for TorqueMaster counterbalance systems. For low headroom applications, the jambs should extend to the ceiling height. Minimum side clearance required, from the opening to the wall, is 3-1/2" (89 mm).

IMPORTANT: CLOSELY INSPECT JAMBS, HEADER AND MOUNTING SURFACE. ANY WOOD FOUND NOT TO BE SOUND, MUST BE REPLACED.

For TorqueMaster counterbalance systems, a suitable mounting surface (2" x 4") must be firmly attached to the wall, above the header at the center of the opening.

NOTE: Drill a 3/16" pilot hole in the mounting surface to avoid splitting the lumber. Do not attach the mounting surface with nails.

Weather seal (may not be included) / Door stop:

Cut the weather seal or door stop (if necessary) to fit header and jambs.

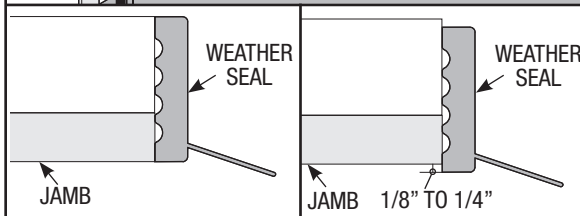
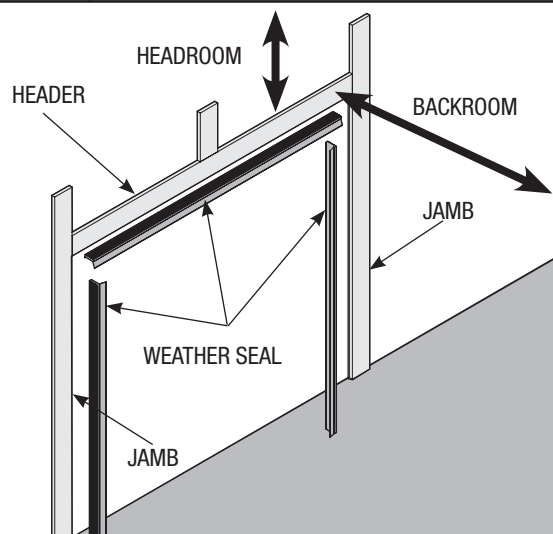
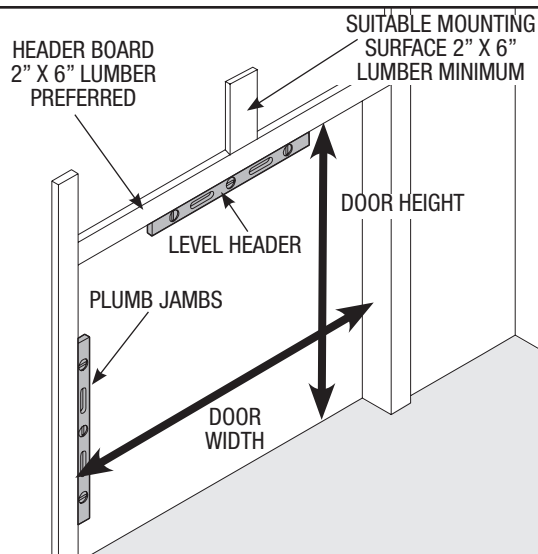
For quick install track: Align the header seal with the inside edge of the header and temporarily secure it to the header with equally spaced nails. Next, fit the jamb seals up tight against the header seal and flush with the inside edge of the jamb. Temporarily secure the jamb seals with equally spaced nails approximately 12" to 18" apart. This will keep the bottom section from falling out of the opening during installation.

For fully adjustable track: Align the header seal 1/8" to 1/4" inside the header and temporarily secure it to the header with equally spaced nails. Next, fit the jamb seals up tight against the header seal and 1/8" to 1/4" inside the jamb. Temporarily secure the jamb seals with equally spaced nails approximately 12" to 18" apart. This will keep the bottom section from falling out of the opening during installation.

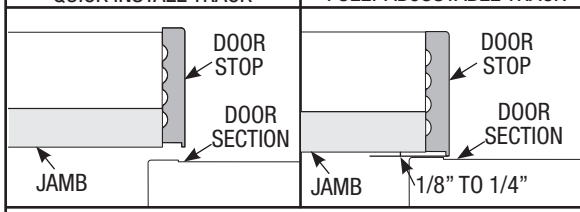
NOTE: Do not permanently attach weather seal or door stop to the jamb at this time.

HEADROOM REQUIREMENT: Headroom is defined as the space needed above the top of the door for tracks, springs, etc. to allow the door to open properly. If the door is to be motor operated, 2-1/2" (64 mm) of additional headroom is required.

BACKROOM REQUIREMENT: Backroom is defined as the distance needed from the opening back into the garage to allow the door to open fully.



QUICK INSTALL TRACK



FULLY ADJUSTABLE TRACK

TRACK TYPE	TorqueMaster®
6" LHR	6" (152.4 mm)

HEADROOM REQUIREMENT

DOOR HEIGHT	TRACK	MANUAL LIFT	MOTOR OPERATED
8'0"	6" LHR	114" (2590.8 mm)	137" (3175 mm)

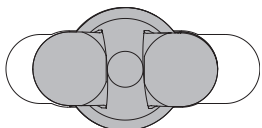
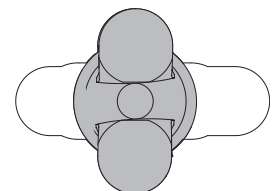
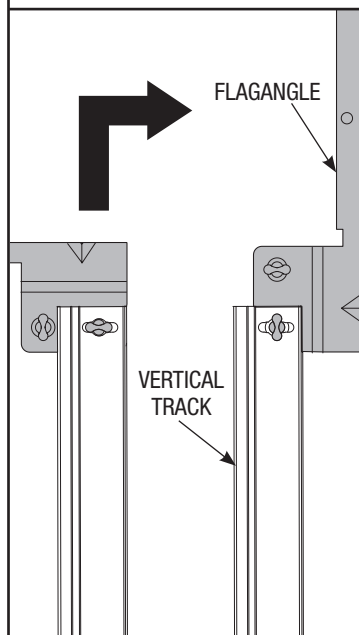
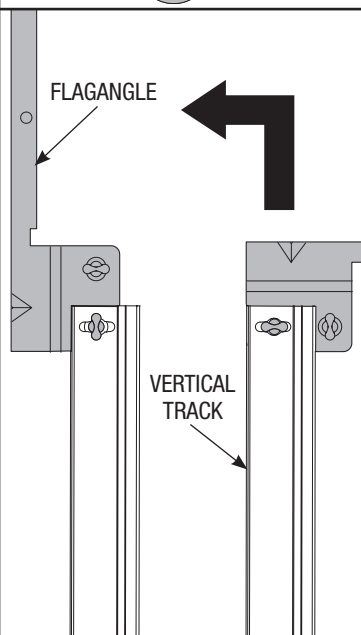
BACKROOM REQUIREMENT

Installation

IMPORTANT: READ INSTRUCTIONS TITLED “P4” “REMOVING THE OLD DOOR” ON PAGE 9 AND “P5” “PREPARING THE OPENING” ON PAGE 10 BEFORE ATTEMPTING DOOR INSTALLATION.

IMPORTANT: STAINLESS STEEL OR PT 2000 COATED LAG SCREWS MUST BE USED WHEN INSTALLING CENTER BEARING BRACKETS, END BRACKETS, JAMB BRACKETS, OPERATOR MOUNTING/SUPPORT BRACKETS AND DISCONNECT BRACKETS ON TREATED LUMBER (PRESERVATIVE-TREATED). STAINLESS STEEL LAG SCREWS ARE NOT NECESSARY WHEN INSTALLING PRODUCTS ON UN-TREATED LUMBER.

NOTE: It is recommended that 5/16” x 1-5/8” lag screws be pilot drilled using a 3/16” drill bit, and 1/4” x 2” lag screws and 1/4” x 1-1/2” lag screws be pilot drilled using a 1/8” drill bit, prior to fastening.

1	Attaching Quick Install Flagangle to Vertical Track		QUICK INSTALL TAB UNLOCKED	QUICK INSTALL TAB LOCKED
	Tools Needed: None	<p>NOTE: If you have fully adjustable flagangle, skip this step and complete Step 2.</p> <p>Place the lower quick install tab of the flagangle in the quick install feature of the vertical track. Give the flagangle 1/4 turn to lock in place. Repeat for other side.</p> <p>NOTE: After completing this step, continue with Step 3.</p>		
				
		LEFT HAND TRACK AND FLAGANGLE	RIGHT HAND TRACK AND FLAGANGLE	

Please Do Not Return This Product To The Store. Contact your local Wayne-Dalton dealer. To find your local Wayne-Dalton dealer, refer to your local yellow pages business listings or go to the Find a Dealer section **online at www.Wayne-Dalton.com**

2

Attaching Fully Adjustable Flagangle to Vertical Track

Tools Needed:
None

NOTE: If quick install flagangle was installed in Step 1, skip this step and continue with Step 3. If not, complete this step.

Hand tighten the flagangle to the vertical track using (2) 1/4" - 20 x 9/16" large head ribbed track bolts (or stud plate if included) and (2) 1/4" - 20 flange hex nuts. Repeat for other side.

Secure the flange nuts after flagangle spacing is complete (Step 10).

FULLY ADJUSTABLE FLAGANGLE

1/4" - 20
FLANGE HEX
NUTS

STUD PLATE
(IF INCLUDED)

1/4" - 20 X 9/16"
LARGE HEAD RIBBED
TRACK BOLTS

VERTICAL TRACK

3

Installing Quick Install Jamb Brackets

Tools Needed:
None

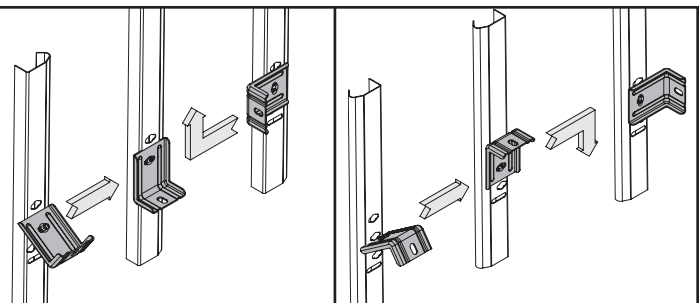
NOTE: If you have fully adjustable jamb brackets, skip this step and complete Step 4.

Measure the length of the vertical tracks. Using the jamb bracket schedule, determine the placement of the jamb brackets for your door height and track type. To install the jamb brackets, align the twistlock tab on the quick install jamb bracket with the quick install feature in the track and turn the bracket perpendicular to the track so the mounting flange is toward the back (flat) leg of the track.

NOTE: After completing this step, continue with Step 5.

JAMB BRACKET SCHEDULE

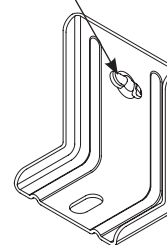
DOOR HEIGHT	1ST SET		2ND SET		3RD SET	
	JAMB BKT	POSITION	JAMB BKT	POSITION	JAMB BKT	POSITION
8'0" 96" TRACK	QJJB - 3	BOTTOM	QJJB - 7	TOP	QJJB - 8	TOP



LEFT SIDE SHOWN

RIGHT SIDE SHOWN

TWISTLOCK TAB



QI JAMB BRACKET

TOP HOLE

MIDDLE HOLE

BOTTOM HOLE

3RD SET HOLES

2ND SET HOLES

1ST SET HOLES

QUICK INSTALL FEATURE

4

Installing Fully Adjustable Jamb Brackets

Tools Needed:
None

NOTE: If you have quick install jamb brackets, skip this step and continue Step 5.

The bottom jamb bracket is always the shortest bracket included with your door. If three jamb brackets are included with the door, the middle bracket on the track is the middle bracket in height. The top jamb bracket is the tallest bracket included.

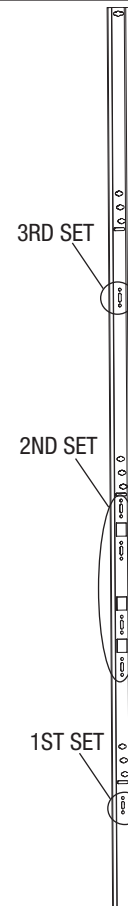
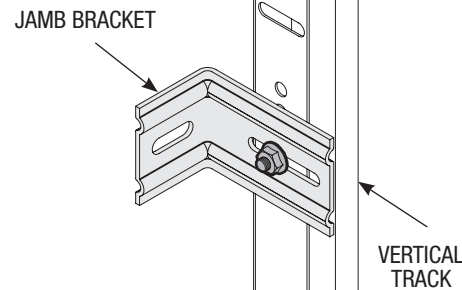
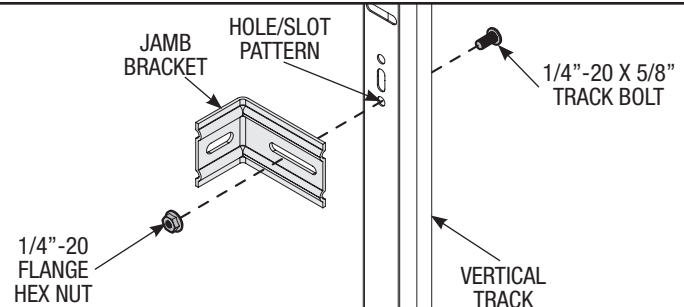
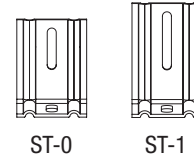
To attach the bottom jamb bracket, locate the lower hole/slot pattern of the vertical track. Align the slot in the jamb bracket with the lower hole of the hole/slot pattern in the vertical track. Loosely hand fasten the bracket onto the track with (1) 1/4" - 20 x 9/16" track bolt and (1) 1/4" - 20 flange hex nut.

Place the center jamb bracket over the hole/slot pattern that is centered between the bottom jamb bracket and flagangle. Align the slot in the jamb bracket with the lower hole of the hole/slot pattern. Loosely hand fasten the bracket onto the track with (1) 1/4" - 20 x 9/16" track bolt and (1) 1/4" - 20 flange hex nut.

Repeat if a third jamb bracket is provided, equally spacing the distance between the two center jamb brackets and the bottom jamb bracket and flagangle.

NOTE: While the bottom jamb bracket is the shortest in length that is included with your door, it does not necessarily mean it is the "short" (ST-0) jamb bracket.

FULLY ADJUSTABLE JAMB BRACKETS



INSTALLATION

5

Drums

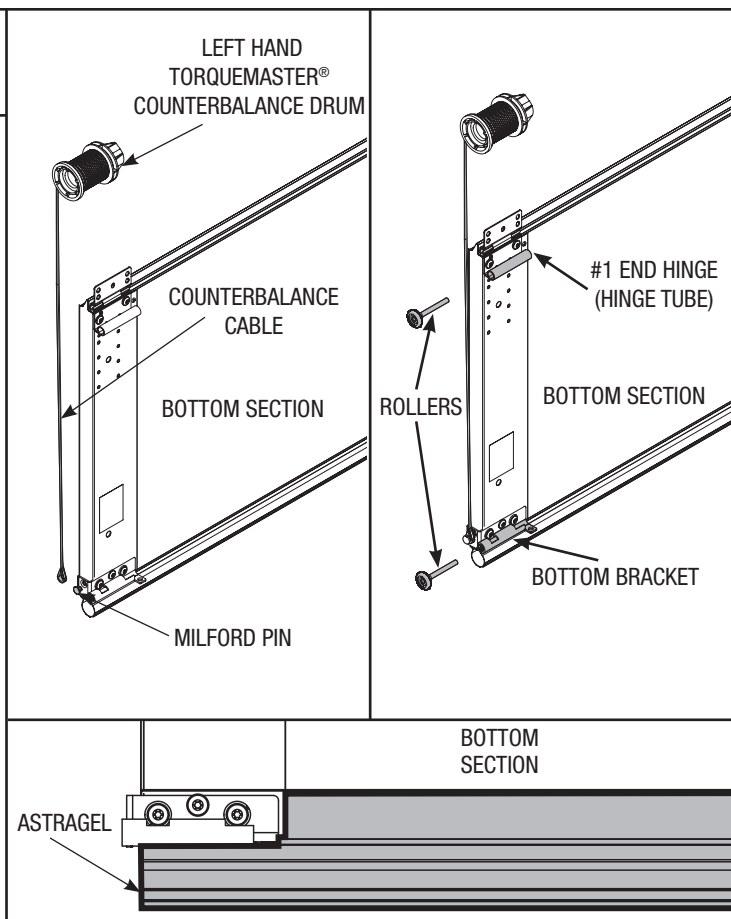
Tools Needed:
None

IMPORTANT: RIGHT AND LEFT HAND IS ALWAYS DETERMINED FROM INSIDE THE GARAGE LOOKING OUT.

NOTE: For door section identification see page 4.

TorqueMaster® drums are marked right and left hand. Uncoil the counterbalance cables and make sure you place the right hand cable loop on the right hand milford pin and place the left hand cable loop on the left hand milford pin. Insert a roller into bottom bracket of the bottom section and insert another roller at #1 end hinge at the top of the bottom section. Repeat for other side.

NOTE: Verify astragal (bottom seal) is aligned with door section. If there is more than 1/2" excess astragal on either side, trim astragal even with door section.



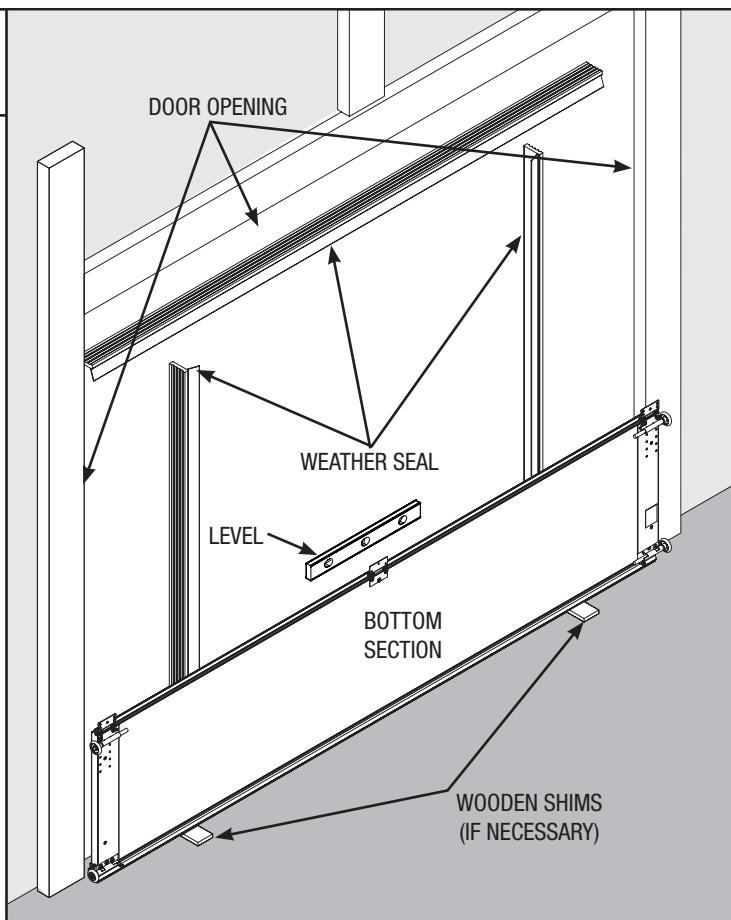
6

Bottom Section

Tools Needed:
Level

Before installing the bottom section, the weather seal (may not be included) must be installed (see PREPARING THE OPENING on page 10)

Center the bottom section in the door opening. Level section using wooden shims (if necessary) under the bottom astragal.



7

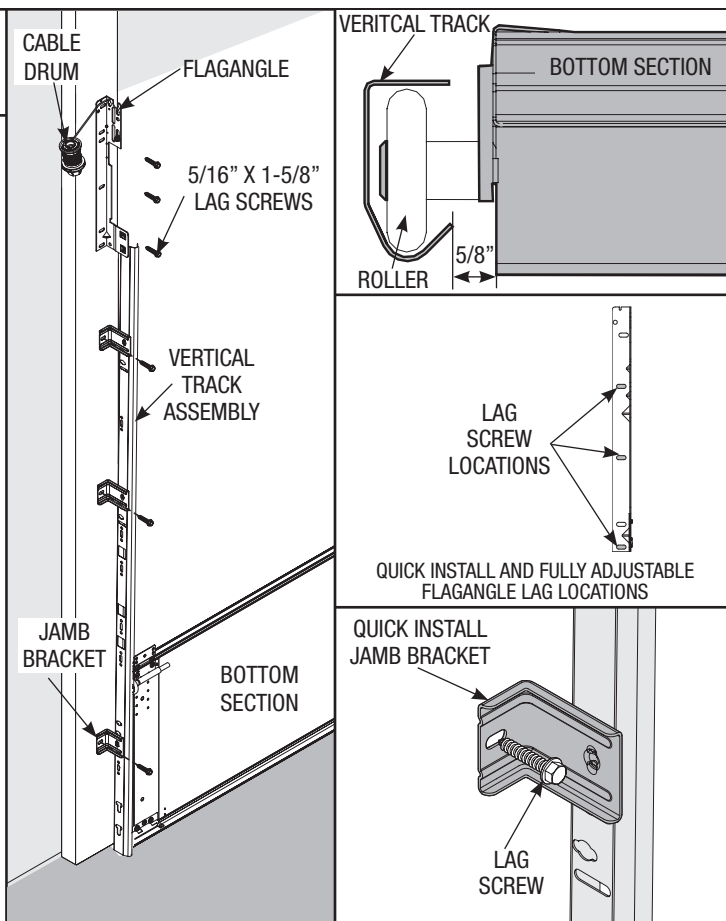
Vertical Track

Tools Needed:
3/16" Drill Bit
Power Drill
7/16" Socket Driver
Tape Measure
Level

IMPORTANT: THE TOPS OF THE VERTICAL TRACKS MUST BE LEVEL FROM SIDE TO SIDE. IF THE BOTTOM SECTION WAS SHIMMED TO LEVEL IT. THE VERTICAL TRACK ON THE SHIMMED SIDE, MUST BE RAISED THE HEIGHT OF THE SHIM.

Position the left hand vertical track assembly over the rollers of the bottom section. Make sure the counterbalance cable is located between the rollers and the door jamb. Drill 3/16" pilot holes for the lag screws. Loosely fasten jamb brackets and flagangles to the jamb using 5/16" x 1-5/8" lag screws.

Tighten lag screw securing bottom jamb bracket to jamb, to maintain 5/8" spacing. Hang cable drum over flagangle. Repeat for the right side.



8

Stacking Sections

Tools Needed:
Power Drill
7/16" Socket Driver

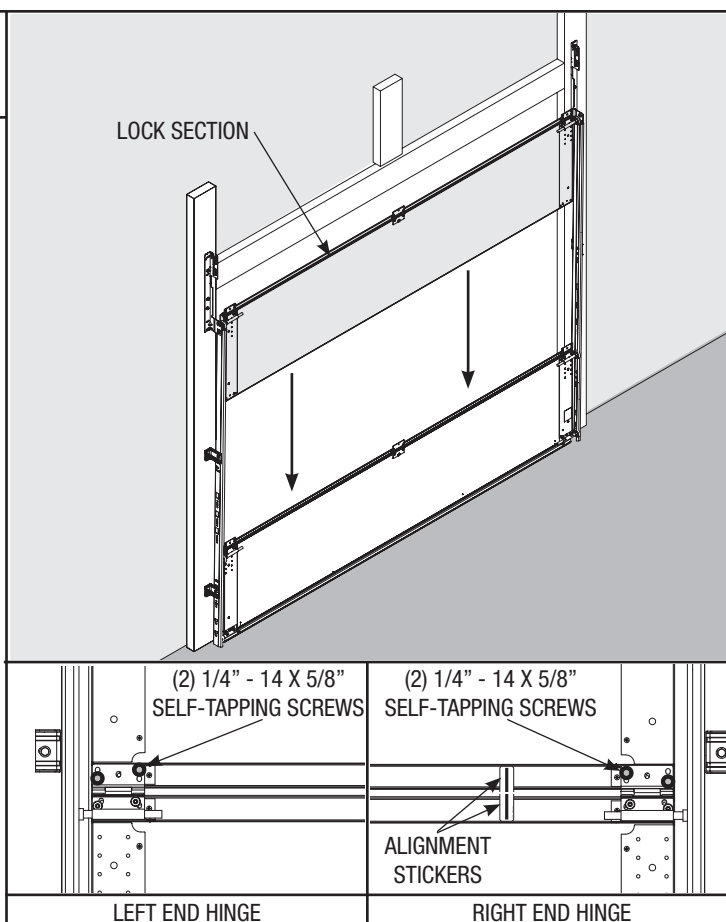
NOTE: For door section identification see page 4.

NOTE: Make sure hinge leafs are flipped down, when stacking another section on top.

Place rollers in hinge tubes of the second section (lock section). With assistance, lift second section and guide rollers into the vertical tracks.

Align vertical marks in the upper alignment sticker, with the lower alignment sticker on right hand side on the back of door. Keep sections aligned and fasten hinges to connect the sections using 1/4" - 14 x 5/8" self-tapping screws. Repeat for other section(s) except top section.

IMPORTANT: WHEN SECURING THE END HINGES TO THE SECTIONS WITH 1/4" - 14 X 5/8" SELF-TAPPING SCREWS, ENSURE THEY ARE ATTACHED AS SHOWN IN THE ILLUSTRATIONS ABOVE.



8

Stacking Sections

Tools Needed:
Power Drill
7/16" Socket
Driver

IMPORTANT: PUSH & HOLD THE HINGE LEAFS AGAINST SECTION WHILE SECURING WITH 1/4" - 14 X 5/8" SELF-TAPPING SCREWS. END HINGES HAVE (2) SCREWS AND INTERMEDIATE HINGES HAVE (3) SCREWS.

NOTE: Install lock at this time (sold separately) see instructions in OPTIONAL SIDELOCK INSTALLATION on page 33.

(3) 1/4" - 14 X 5/8" SELF-TAPPING SCREWS

INTERMEDIATE HINGE

(2) 1/4" - 14 X 5/8" SELF-TAPPING SCREWS

END HINGES (LEFT HAND SHOWN, RIGHT HINGE SYMMETRICALLY OPPOSITE)

(3) 1/4" - 14 X 5/8" SELF-TAPPING SCREWS

INTERMEDIATE HINGES

9

Operator Bracket

Tools Needed:
Power Drill
7/16" Socket
Driver

NOTE: If installing a trolley type operator, complete this step. If not, skip this step and continue with step 10.

IMPORTANT: WHEN INSTALLING A TROLLEY TYPE OPERATOR ON 9800 DOOR, A WAYNE-DALTON TROLLEY BRACKET MUST BE SECURELY ATTACHED TO THE TOP SECTION. IT IS THEN UNNECESSARY TO FURTHER REINFORCE THE TOP SECTION OF THE MODEL 9800 WAYNE-DALTON DOOR, WHEN ATTACHING A TROLLEY TYPE OPERATOR, AS LONG AS THE INSTALLATION OF THE OPERATOR IS ACCORDING TO INSTALLATION INSTRUCTIONS AND OWNER'S MANUAL AND FORCE SETTINGS ARE ADJUSTED PROPERLY.

Remove, but retain (4-6) 1/4" - 20 x 7/8" self drilling screws from the center of the u-bar, allowing the operator bracket to slide between the section and the u-bar.

NOTE: For retro fit applications, the operator bracket must be aligned with an existing operator

Locate the center of the top section and slide operator bracket under u-bar till the operator bracket is seated against the u-bar flange. **NOTE:** Prior to fastening operator bracket to top section, ensure the top edge of operator bracket is aligned with the top edge of the section as shown on far right. Attach the operator bracket using (6) 1/4" - 20 x 5/8" self drilling screws (as shown). Finish re-attaching the u-bar using the self tapping screws removed previously.

SIDE VIEW OF U-BAR

U-BAR

1/4"-20 X 7/8" SELF DRILLING SCREWS

U-BAR

OPERATOR BRACKET

U-BAR

OPERATOR BRACKET

TOP OF SECTION

TOP EDGE OF OPERATOR BRACKET

U-BAR

OPERATOR BRACKET

SIDE VIEW OF U-BAR WITH OPERATOR BRACKET INSTALLED

OPERATOR BRACKET IN PLACE UNDER U-BAR

(6) 1/4"-20 X 5/8" SELF DRILLING SCREWS

Tools Needed:

Hammer

7/16" Socket

7/16" Wrench

Ratchet Wrench

7/16" Socket
Driver

Power Drill

Place the top section in the opening and vertically align with lower sections.

Align vertical marks in the upper alignment sticker, with the lower alignment sticker on right hand side on the back of door.

Temporarily secure the top section by driving a nail in the header near the center of the door and bending it over the top section.

Now flip up hinge leaves, hold tight against section, and fasten center hinges first, and end hinges last. (Refer to Step 8).

When installing a door with a TorqueMaster® counterbalance system, vertical track alignment is critical. Position flagangle between 1-11/16" (43 mm) to 1-3/4" (44 mm) from the edge of the door. Tighten the bottom lag screw. Flagangles must be parallel to the door sections. Repeat for opposite side.

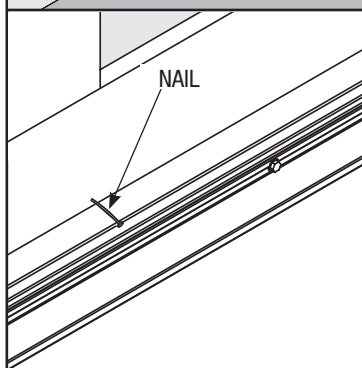
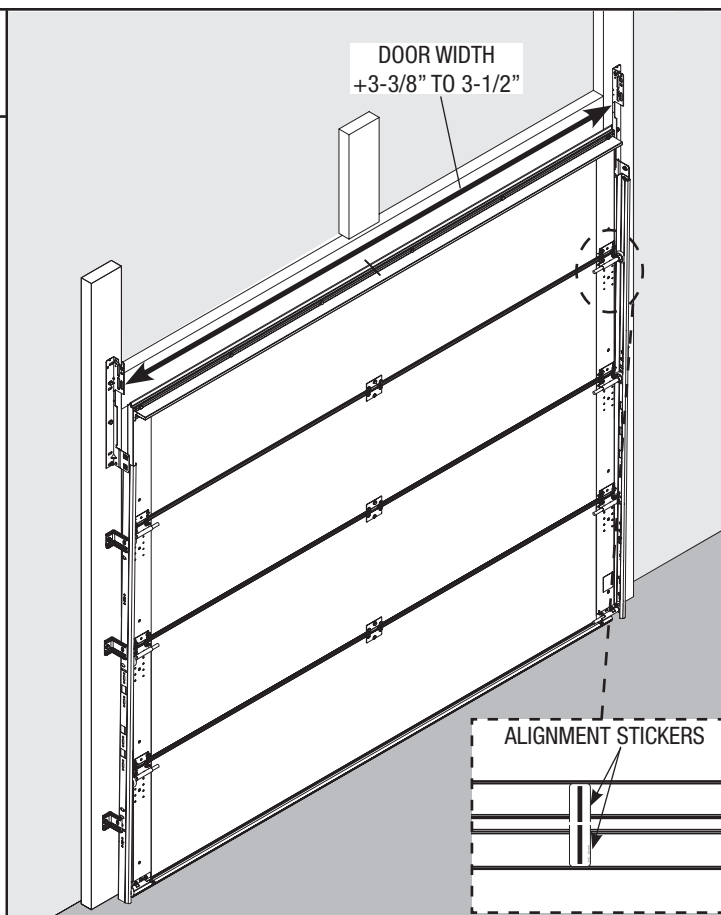
IMPORTANT: THE DIMENSION BETWEEN THE FLAGANGLES MUST BE DOORWIDTH PLUS 3-3/8" (86MM) TO 3-1/2" (89 MM) FOR SMOOTH, SAFE DOOR OPERATION.

For quick install track:

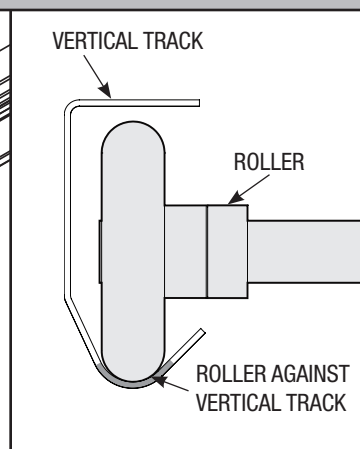
Complete the vertical track installation by securing the center jamb bracket(s) and tightening the other lag screws. Repeat for opposite side.

For fully adjustable track:

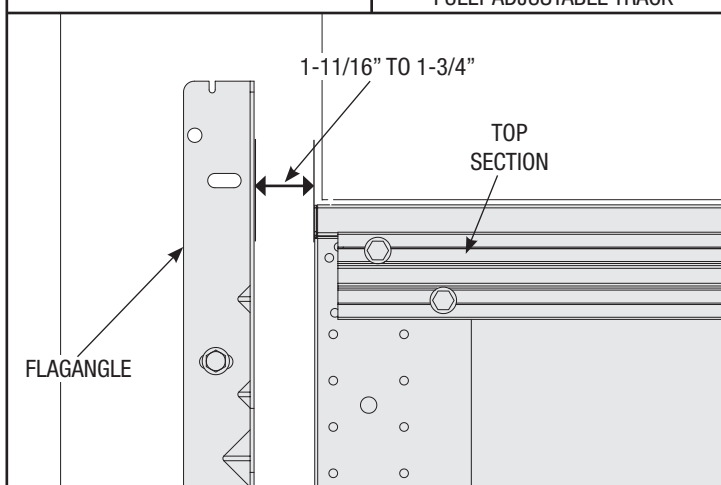
Complete the vertical track installation by securing the center jamb bracket(s) and tightening the other lag screws. Push the vertical track against the rollers so that the rollers are touching the deepest part of the curved side of the track (see illustration). Tighten all the track bolts and nuts. Repeat for opposite side.



TOP SECTION



FULLY ADJUSTABLE TRACK



FLAGANGLE

TOP
SECTION

11

Attaching Horizontal Track to Quick Install Flagangle

Tools Needed:

7/16" Socket

Ratchet Wrench

7/16" Wrench

Level

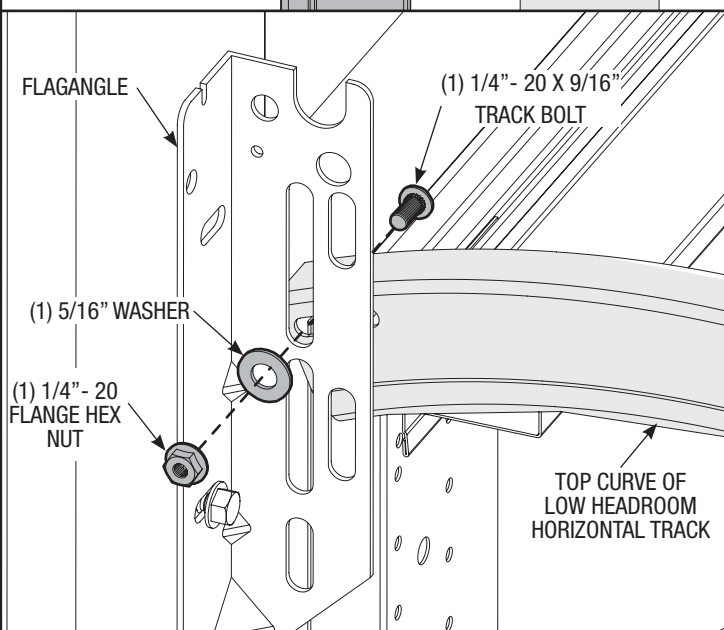
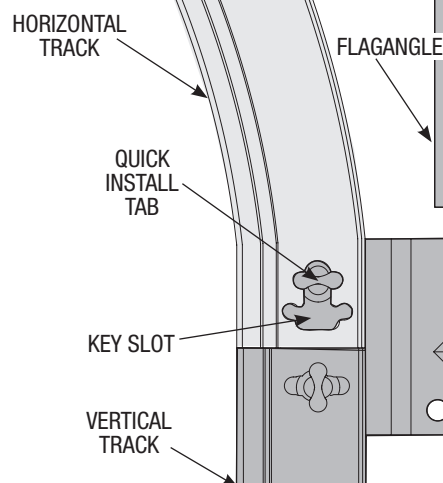
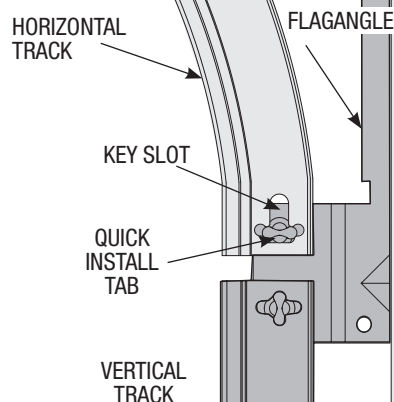
NOTE: If you have fully adjustable flagangle, skip this step and complete Step 12.

To install horizontal track, align the key slot of the horizontal track with the quick install tab of the flagangle. Push curved portion of horizontal track down to lock in place.

Level horizontal track and bolt the top curve of the low headroom horizontal track slot in the flagangle using (1) 5/16" washer, (1) 1/4" - 20 x 9/16" track bolt and (1) 1/4" - 20 flange hex nut. Repeat for other side.

NOTE: If an idrive® opener will be installed, position horizontal tracks slightly above level.

NOTE: After completing this step, continue with Step 13.



12

Attaching Horizontal Track to Adjustable Flagangle

Tools Needed:

7/16" Socket

Ratchet Wrench

7/16" Wrench

Level

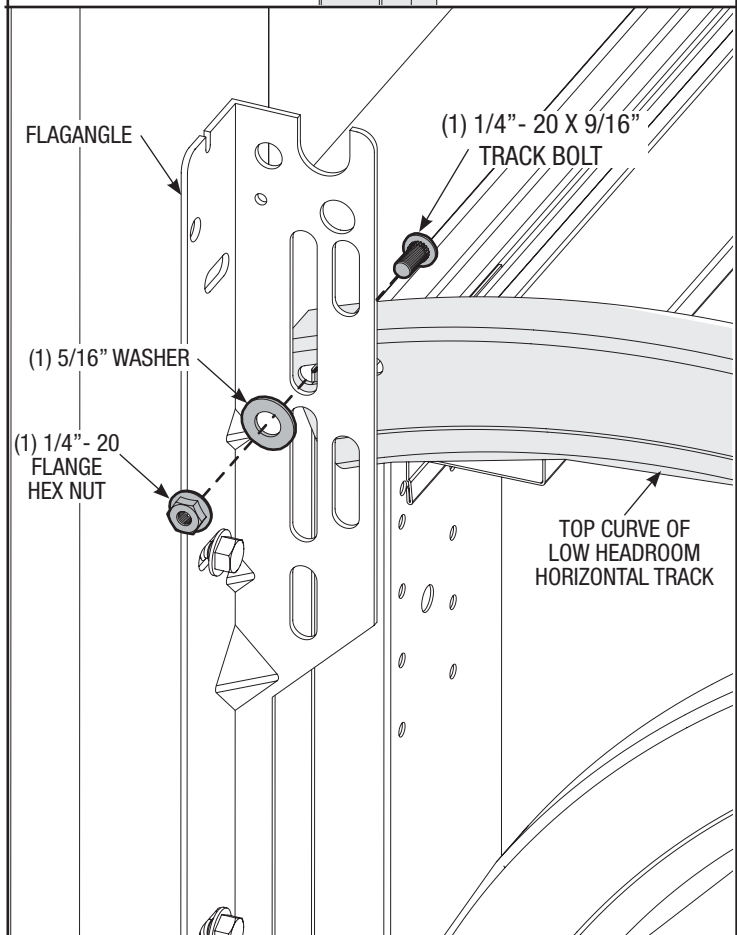
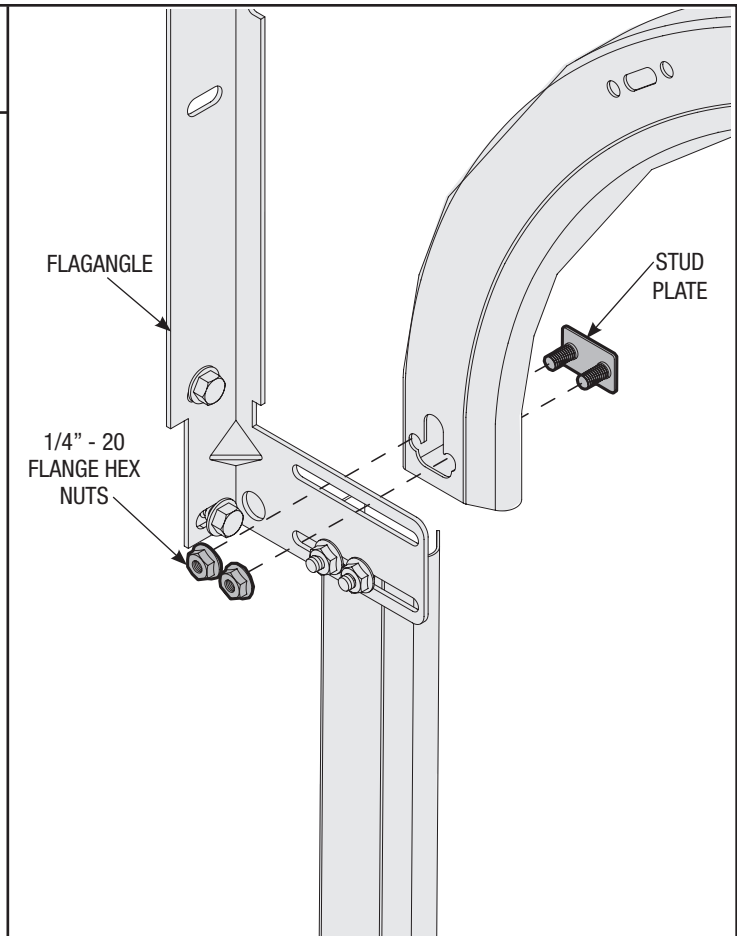
Flat Tip
Screwdriver

NOTE: If quick install flagangle was installed in Step 11, skip this step and continue with Step 13. If not, complete this step.

To install horizontal track, place the curved end over the top roller. Align the bottom of the horizontal track with the vertical track. Hand tighten the horizontal track to the flagangle with (1) stud plate and (2) 1/4" - 20 flange hex nuts.

Level horizontal track and bolt the top curve of the low headroom horizontal track slot in the flagangle using (1) 5/16" washer, (1) 1/4" - 20 track bolt and (1) 1/4" - 20 flange hex nut. Repeat for other side.

NOTE: If an idrive® opener will be installed, position horizontal tracks slightly above level.



13

Top Brackets

Tools Needed:

Power Drill

7/16" Socket
Driver

Hammer

Remove, but retain (2-4) 1/4" - 14 x 7/8" self drilling screws from the right side of the u-bar, allowing enough room to slide the top bracket between the section and the u-bar.

Insert a roller into the low headroom top bracket. Slide the low headroom top bracket assembly between the u-bar and section, as shown.

Twist the roller into the upper track. Align the edge of the top bracket assembly parallel to the section edge. Secure the top bracket and u-bar to the section with (3) 1/4" - 20 x 7/8" self drilling screws through the upper and lower slots of the bracket, as shown.

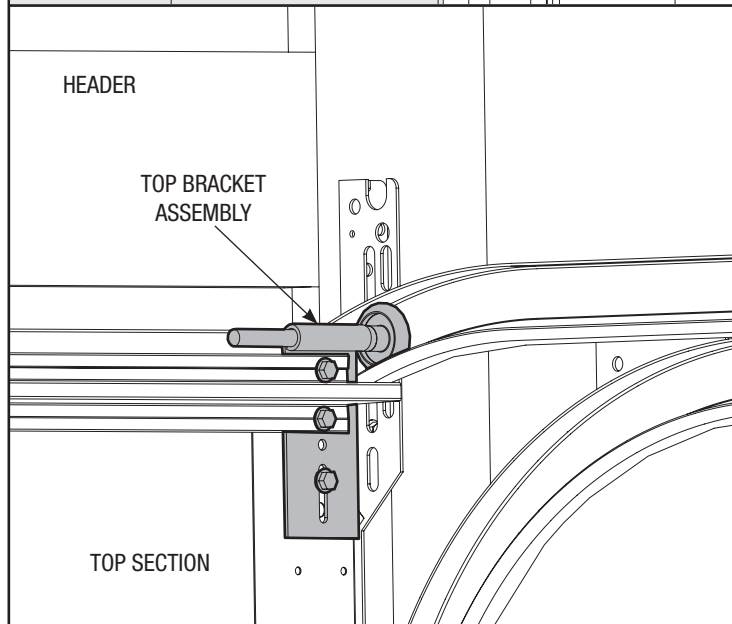
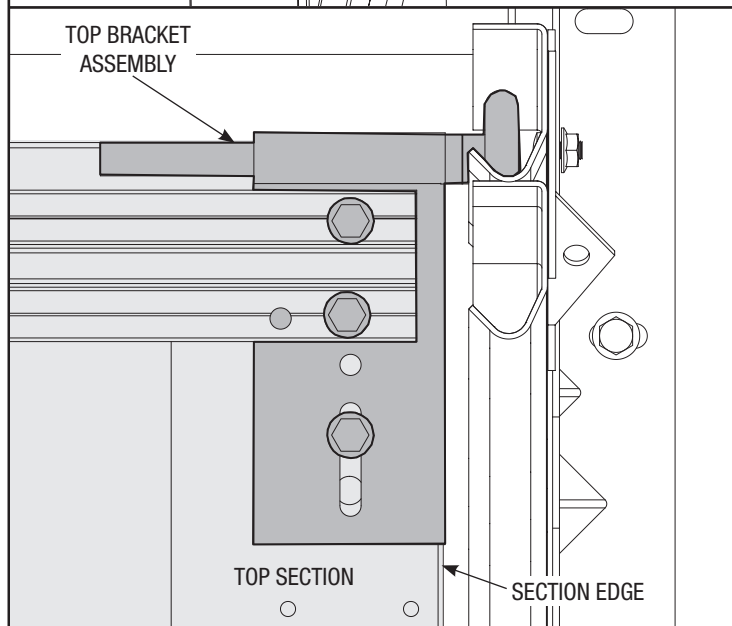
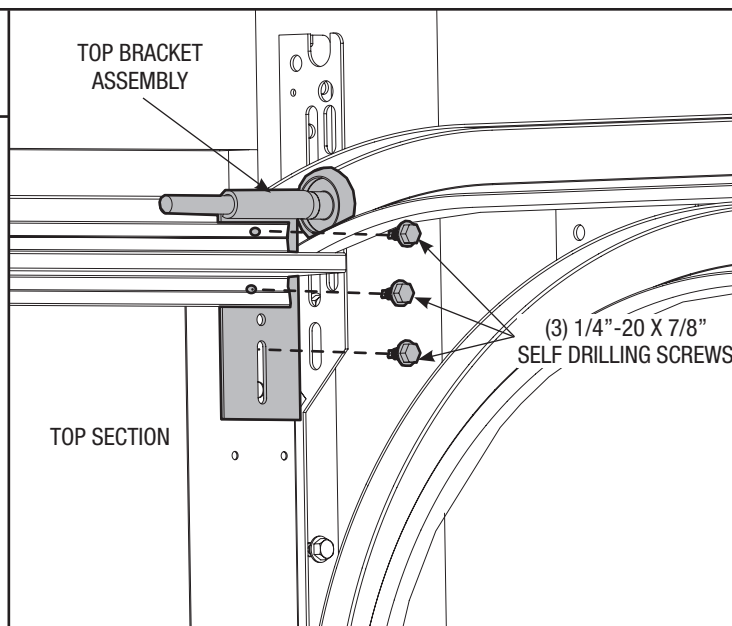
Finish re-attaching the u-bar using the 1/4" - 20 x 7/8" self drilling screws removed previously. Repeat for left hand side.

Remove the nail that was temporarily holding the top section in place.

IMPORTANT: FAILURE TO REMOVE NAIL BEFORE ATTEMPTING TO RAISE DOOR COULD CAUSE PERMANENT DAMAGE TO TOP SECTION.

WARNING

DO NOT RAISE DOOR UNTIL HORIZONTAL TRACKS ARE SECURED AT REAR, AS OUTLINED IN STEP 31, OR DOOR COULD FALL FROM OVERHEAD POSITION CAUSING SEVERE OR FATAL INJURY.



14

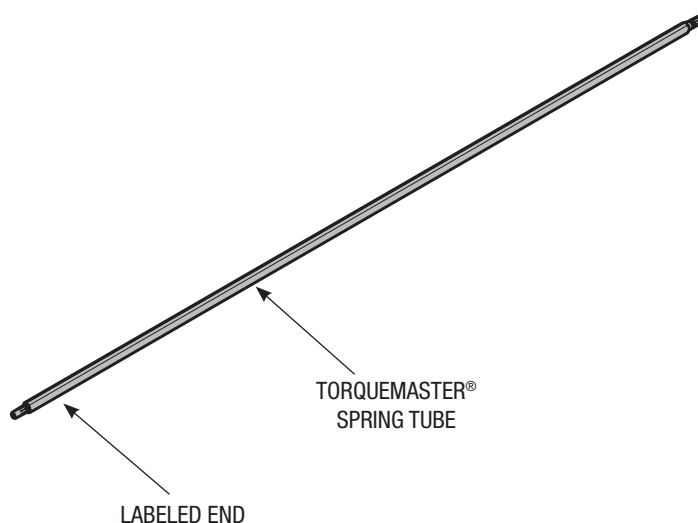
TorqueMaster® Spring Tube

Tools Needed:

None

TorqueMaster® springs come lubricated and pre-assembled inside the Torquemaster® spring tube. To install, lay the Torquemaster® spring tube on the floor (inside garage) in front of the door with the labeled end to the left.

IMPORTANT: RIGHT AND LEFT HAND IS ALWAYS DETERMINED FROM INSIDE THE GARAGE LOOKING OUT.



15

Center Bracket Bushing

Tools Needed:

None

NOTE: If you are installing the *i*drive® opener on your garage door, skip this step and continue with Step 16.

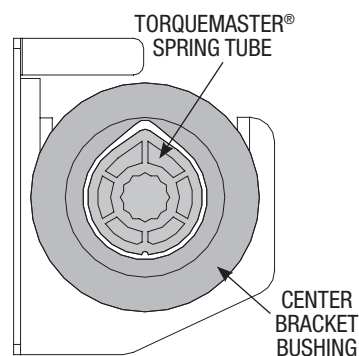
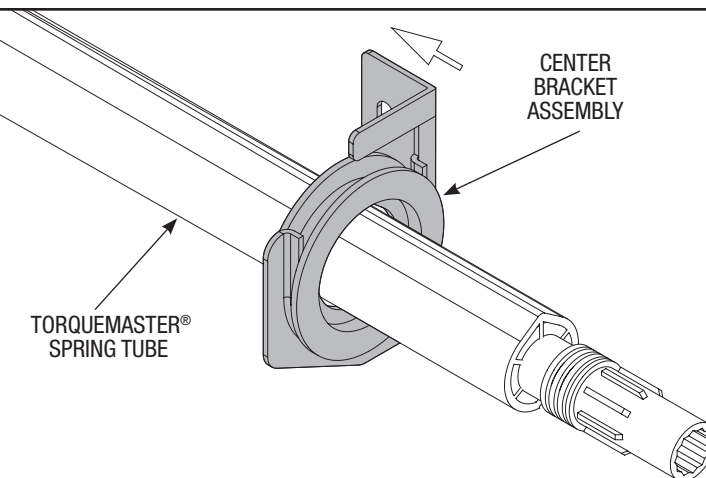
NOTE: If you are not installing the *i*drive® opener on your garage door, you must install the center bracket bushing assembly. Follow these instructions for non-*i*drive® operated garage doors.

NOTE: If you are installing a Doormaster™ opener, see optional Doormaster™ Bracket installations on page 34, Figure A.

Being cam shaped, the center bracket bushing only fits one way.

Slide the center bracket assembly towards the center of the TorqueMaster® spring tube, from the right side as shown.

NOTE: Upon completion of this step, continue with Step 17.



Tools Needed:

None

NOTE: See iDrive® main installation and owners manual for iDrive® parts.

IMPORTANT: RIGHT AND LEFT HAND IS ALWAYS DETERMINED FROM INSIDE THE GARAGE LOOKING OUT.

Lay the TorqueMaster® spring tube on the floor (inside garage) in front of the door with the labeled end to the left.

Look into the opener's left side to ensure the left hand bearing and the internal (black) sleeve are aligned with the TorqueMaster® spring tube profile.

IMPORTANT: HOLD OPENER BY THE MAIN BODY. DO NOT HOLD BY THE MOTOR.

NOTE: Opener will not slide over the TorqueMaster® spring tube label. Attempting to slide opener over the left end of the TorqueMaster® spring tube can damage the internal electronics.

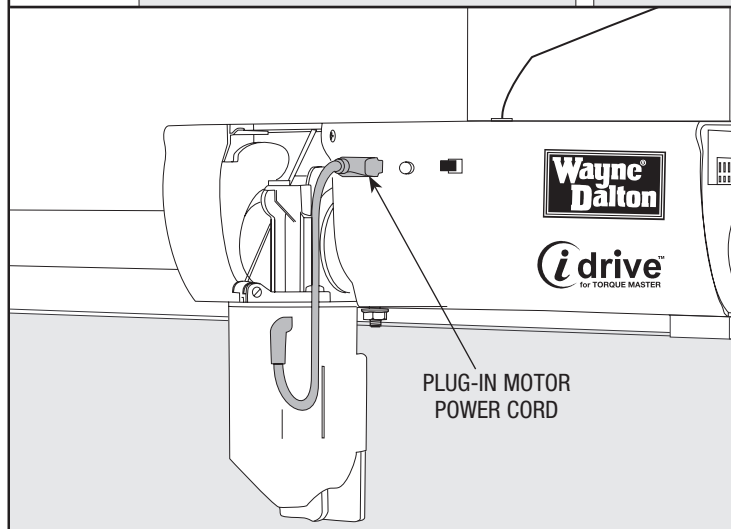
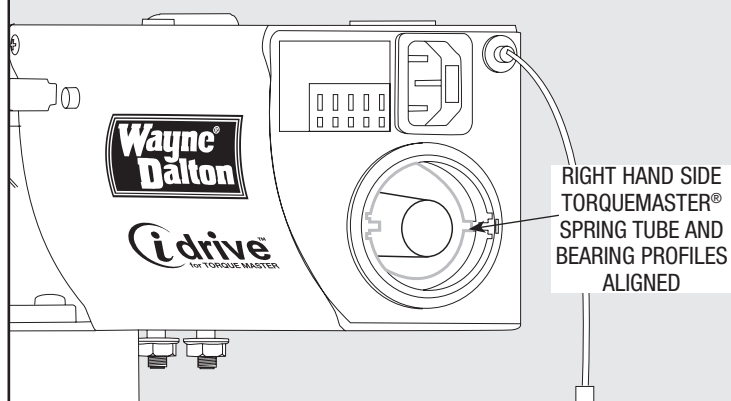
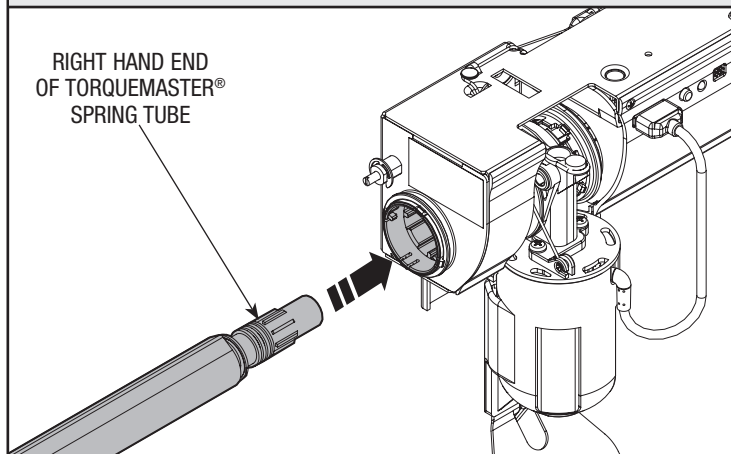
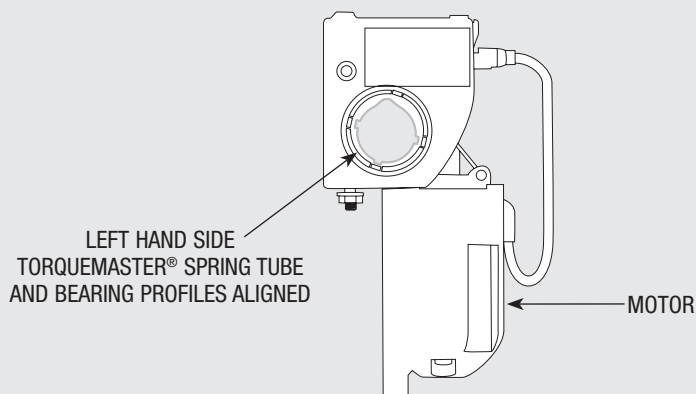
Once aligned, slide the opener onto the right hand end of the TorqueMaster® spring tube. As the right end of the TorqueMaster® spring tube enters the internal (black) sleeve, rotate the opener back and forth slightly to help aid alignment.

Continue sliding the opener onto the TorqueMaster® spring tube. Align the right hand bearing with the TorqueMaster® spring tube and slide the opener completely onto the TorqueMaster® spring tube until the TorqueMaster® spring tube exits the opener's right hand bearing.

NOTE: If misalignment occurs do not force opener onto TorqueMaster® spring tube.

Continue sliding the opener to the center of the TorqueMaster® spring tube.

Plug the motor power cord into the opener.



17

Cable Drum Installation

Tools Needed:
None

Shake the TorqueMaster® spring tube gently to extend the winding shafts out about 5" on each side. For single spring applications, there will be no left hand spring in the TorqueMaster® spring tube.

Lift the TorqueMaster® spring tube and rest it on the top of the flagangles. If iDrive® opener is being installed, orient TorqueMaster® spring tube so the back of opener is flat against header/mounting surface.

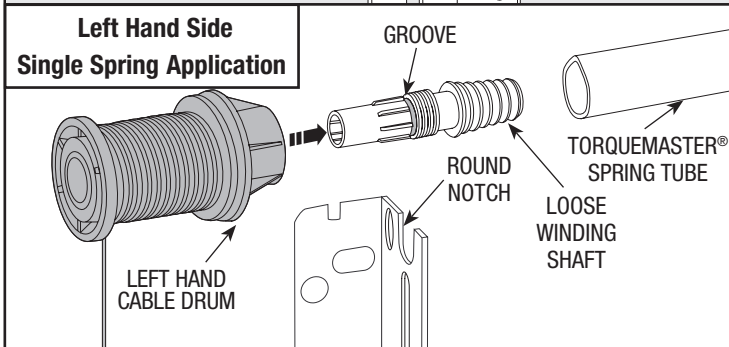
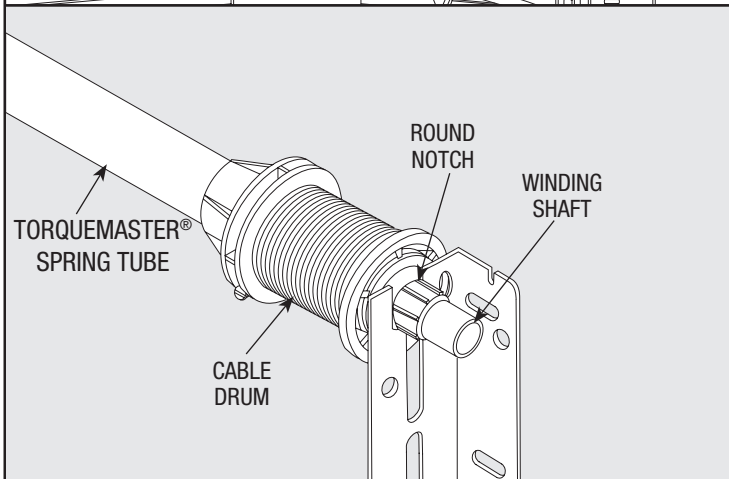
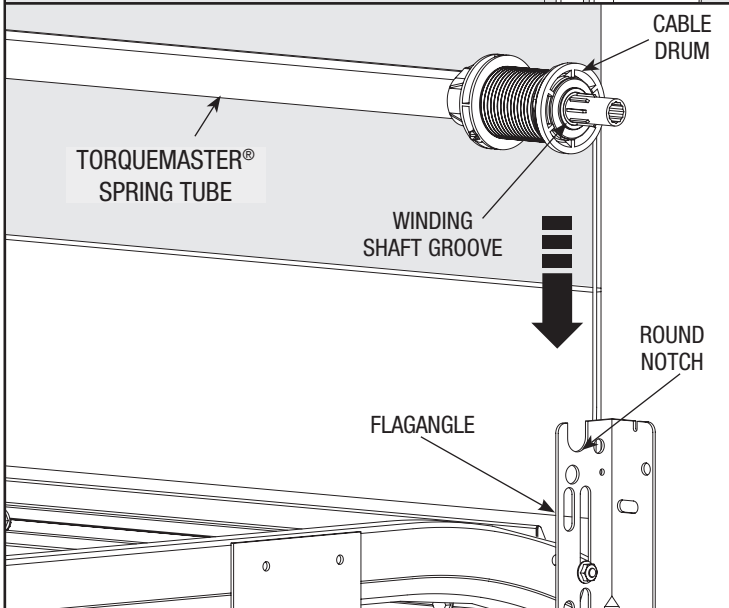
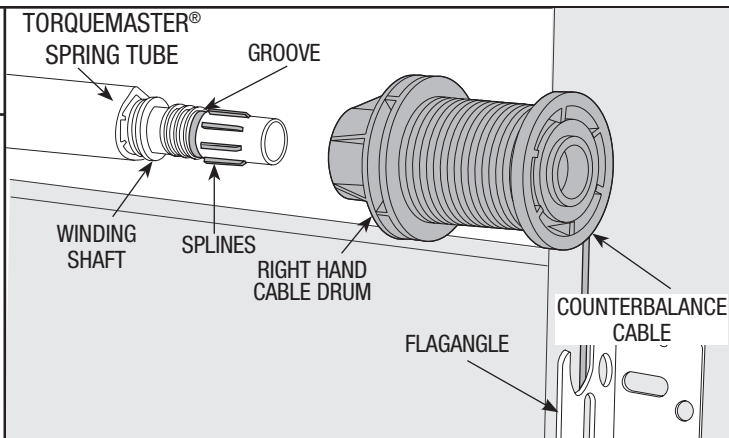
NOTE: Cable drums are marked right and left hand. Cable drums and TorqueMaster® spring tube are cam shaped to fit together only one way.

To install the cable drum, slide the correct cable drum over the winding shaft until the cable drum seats against the TorqueMaster® spring tube. The winding shaft must extend past the cable drum far enough to expose the splines and the groove. Align the winding shaft groove with the round notch in the flagangle.

For double spring applications:
Repeat for opposite side.

For single spring applications:
Insert the loose winding shaft into the left hand cable drum prior to sliding the cable drum over the TorqueMaster® spring tube.

NOTE: On single spring applications, take care in handling the loose winding shaft (left side) so that it does not slide back into the TorqueMaster® spring tube.



INSTALLATION

18

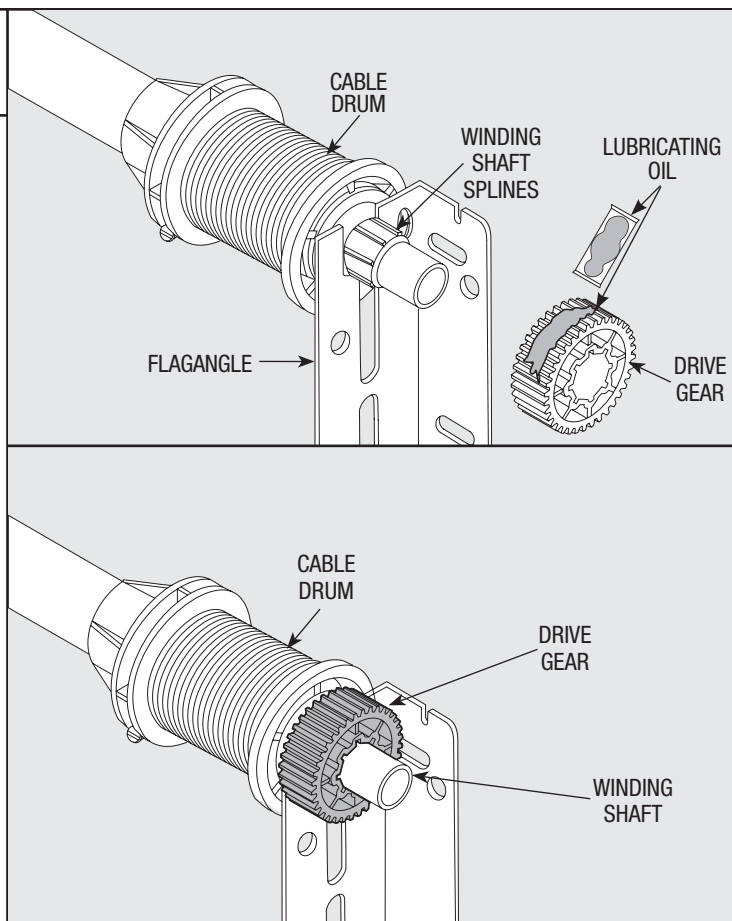
Drive Gear Installation

Tools Needed:
Lubricating Oil

Beginning with the right hand side, lubricate entire circumference of the drive gear with the lubricating oil provided. Slide the drive gear onto the winding shaft splines until it touches the flagangle.

NOTE: On single spring applications, no drive gear is required on the left side.

NOTE: If additional lubricating oil is needed, use "Dura Lube® Engine Oil Treatment".



19

End Brackets

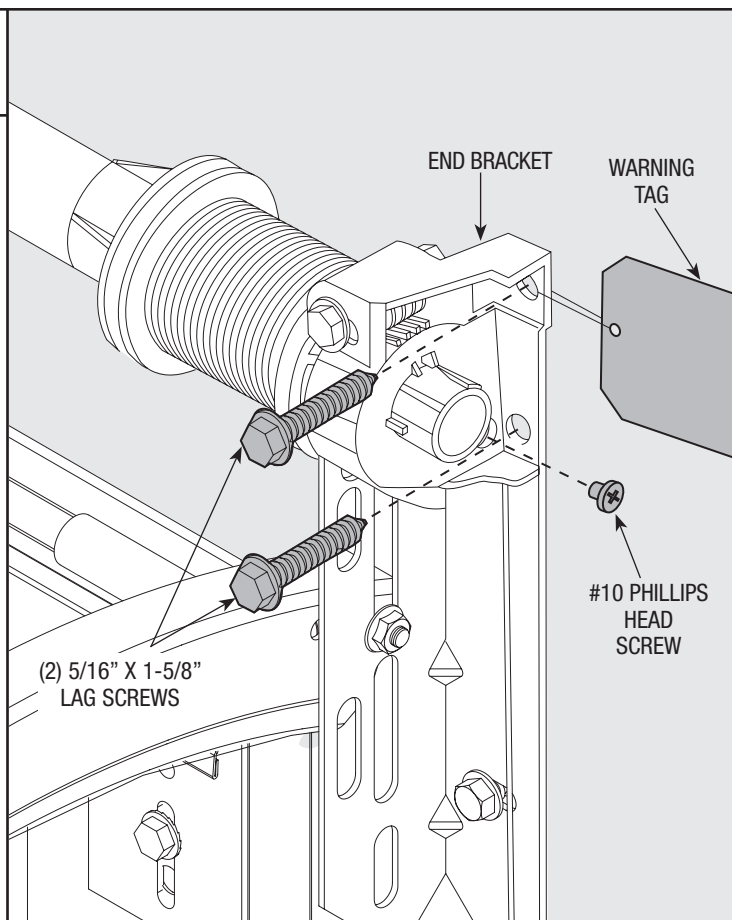
Tools Needed:
Power Drill
3/16" Drill Bit
7/16" Socket Driver
Phillips Head Screwdriver

IMPORTANT: WARNING TAGS MUST BE SECURELY ATTACHED TO BOTH END BRACKETS.

Slide the right hand end bracket over the drive gear and fasten to the flagangle using a #10 self-tapping screw.

Drill 3/16" pilot holes into jamb for the lag screws. Secure end bracket and the flagangle to the jamb using (2) 5/16" x 1-5/8" lag screws.

Repeat for left hand side.



20

Counter Installation

Tools Needed:
None

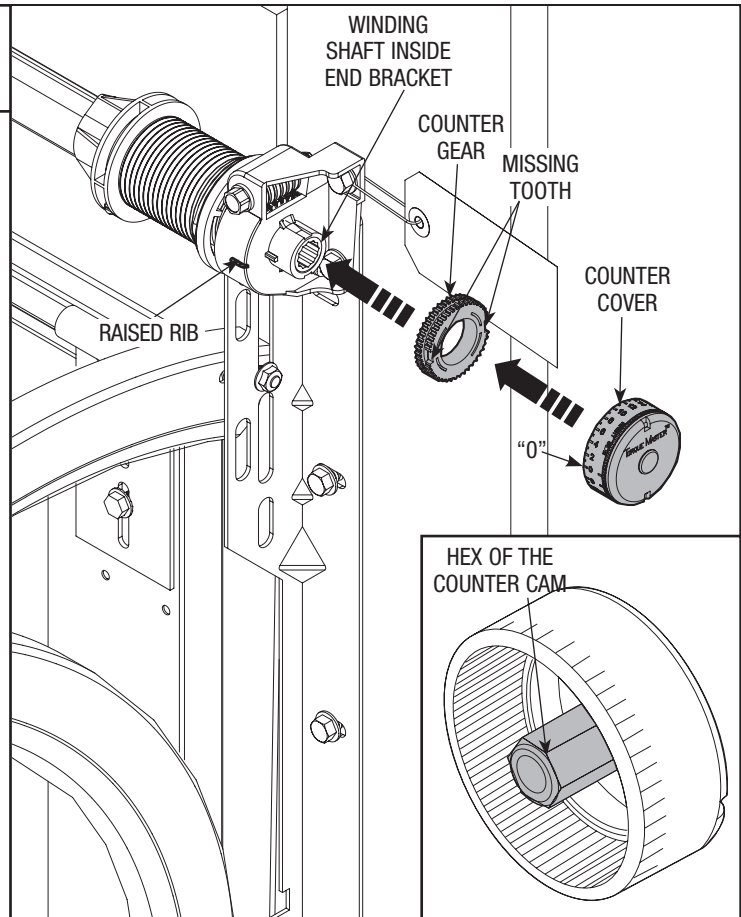
Install the right side counter gear, with the missing tooth toward the outside and away from the end bracket. Press the counter gear onto the end bracket until snaps engage.

Select the right hand counter cover and align the hex of the counter cam with the end of the winding shaft. Also, align the "0" on the counter cover with the raised rib on the end bracket. Press the counter cover against the counter gear until it locks into place.

Repeat for left hand side for double spring applications.

NOTE: No drive gear, counter gear or counter cover is required on left hand side for single spring applications. Only an end bracket is needed.

IMPORTANT: AT THIS TIME DO NOT WIND COUNTERBALANCE SPRINGS!



21

Securing Center Bracket Bushing

Tools Needed:
1/8" Drill Bit
7/16" Socket Driver
Power Drill

NOTE: If you are installing the *i*drive® opener on your garage door, skip this step and continue with Step 22.

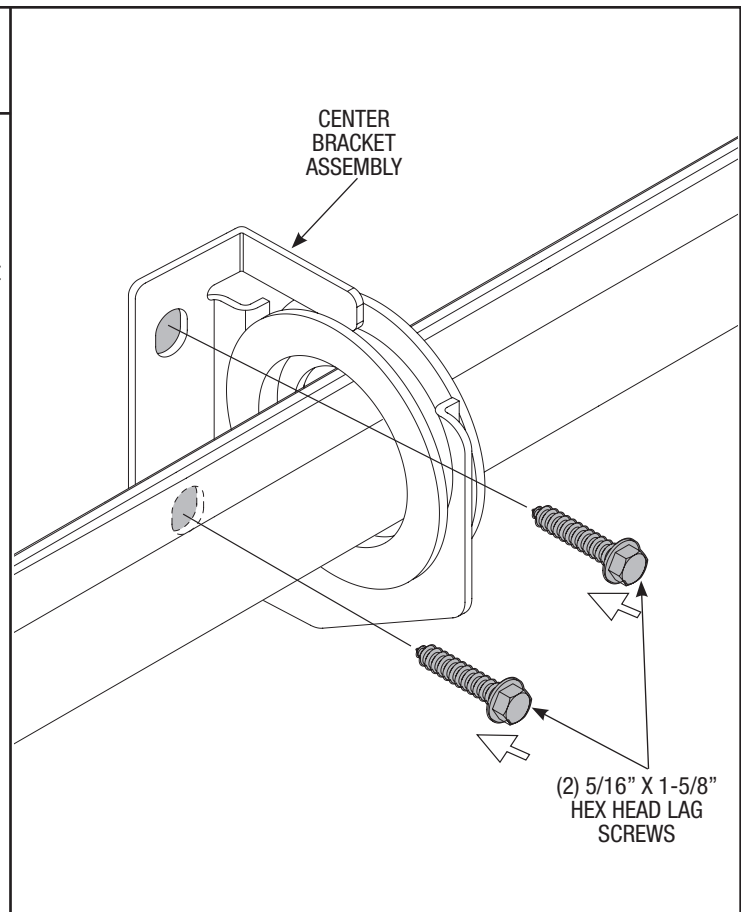
NOTE: If you are installing a Doormaster™ opener, see optional Doormaster™ Bracket installations on page 34, Figure B.

NOTE: If you are not installing the *i*drive® opener on your garage door, you must install the center bracket bushing assembly. Follow these instructions for non-*i*drive® operated garage doors.

IMPORTANT: TORQUEMASTER® SPRING TUBE MUST BE LEVEL AFTER CENTER BRACKET ASSEMBLY IS MOUNTED TO HEADER.

To locate the center bracket, mark the header halfway between the flagangles and level the TorqueMaster® spring tube. Drill 1/8" pilot holes into header for the lag screws. Fasten the metal bracket to the header using (2) 5/16" X 1-5/8" lag screws.

NOTE: Upon completion of this step, continue with step 26.



Positioning Support Bracket

Tools Needed:

Power Drill

1/8" Drill Bit

7/16" Socket Driver

NOTE: See *i*drive® main installation and owners manual for *i*drive® parts.

NOTE: *i*drive® must be installed on a solid mounting surface.

Locate the mounting surface. The mounting surface is a vertical board running directly above the center of the door. Remove (2) 1/4"-20 flange hex nuts from bottom of opener.

NOTE: Do not discard flange nuts.

Place the support bracket underneath opener, to the right side of motor, centered on mounting surface. Using a tape measure, level the bottom of the TorqueMaster® spring tube to the top of the door section with the *i*drive® resting on the support bracket. Once TorqueMaster® spring tube is level, drill 1/8" pilot holes for the lag screws. Then secure support bracket to the mounting surface with (2) 1/4" x 1-1/2" lag screws.

IMPORTANT: TORQUEMASTER® SPRING TUBE MUST BE LEVEL AFTER SUPPORT BRACKET IS FASTENED TO MOUNTING SURFACE.

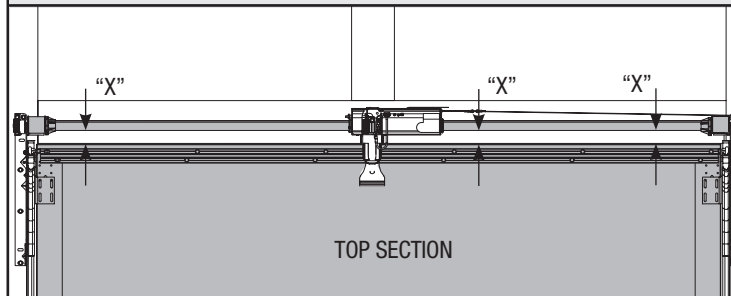
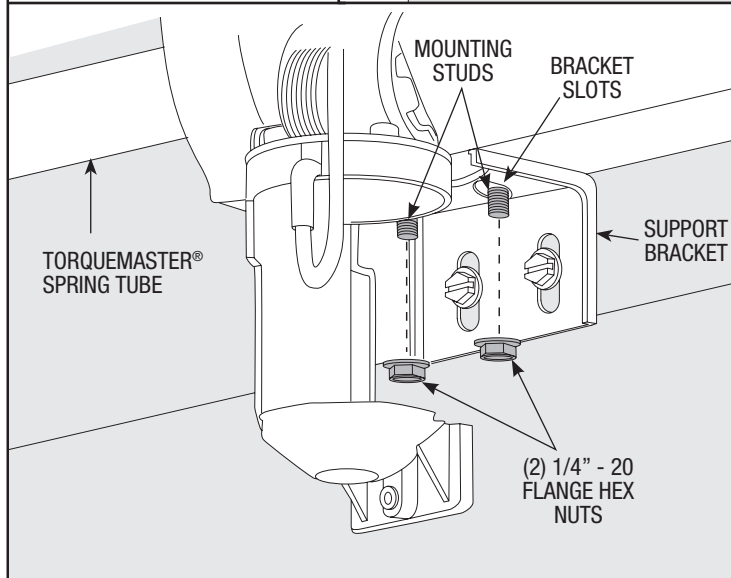
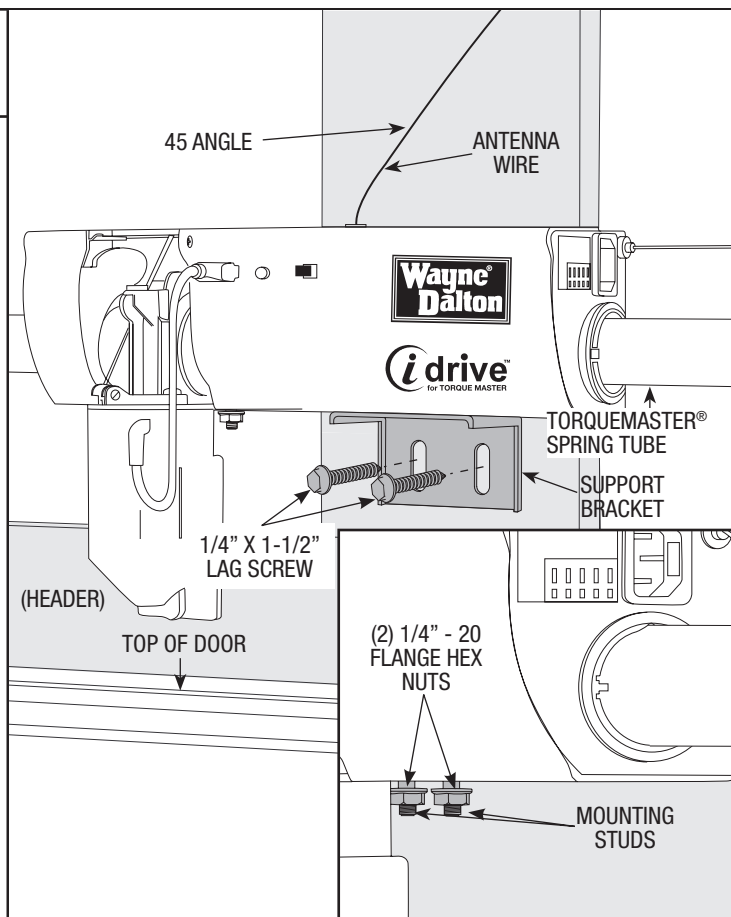
NOTE: If wood mounting surface is behind dry wall, use 1/4" x 2" lag screws.

Lift and slide the opener over the support bracket, aligning the mounting studs with the bracket slots. Loosely fasten to mounting studs with the (2) 1/4"-20 flange hex nuts.

NOTE: Do not tighten 1/4"-20 flange hex nuts to opener studs at this time.

Remove the temporary orange label holding the antenna wire. Straighten antenna wire and angle it 45 degrees to the right.

NOTE: Do not coil the antenna wire. This will reduce the radio signal range.



USING A TAPE MEASURE, MAINTAIN AN EQUAL MEASUREMENT "X" (TOP OF DOOR TO BOTTOM OF TORQUEMASTER® TUBE) AT BOTH ENDS AND THE CENTER.

23

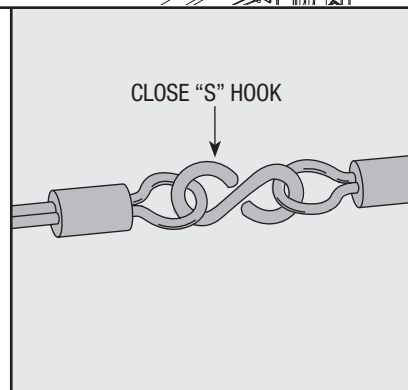
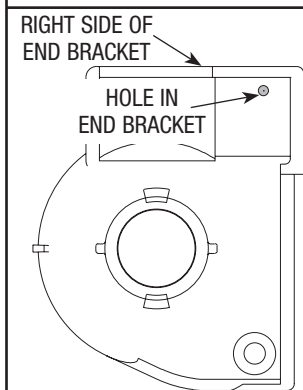
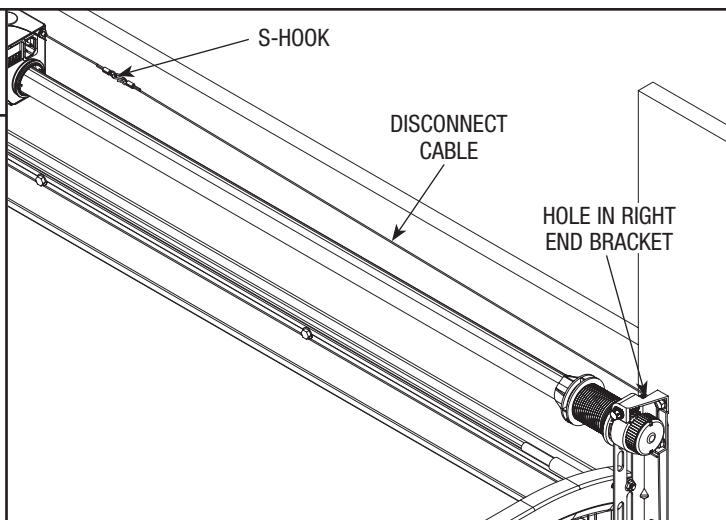
Attaching Disconnect Cables

Tools Needed:
Pliers

NOTE: See *i*drive® main installation and owners manual for *i*drive® parts.

Attach the loose disconnect cable (located in opener hardware bag) to the opener with the "S" hook. Close both ends of the "S" hook with pliers, to lock assembly together.

Thread the disconnect cable (behind the counterbalance cable) through the hole in the right hand end bracket. Remove all slack between opener and right end bracket.



INSTALLATION

24

Mounting Disconnect Handle Bracket

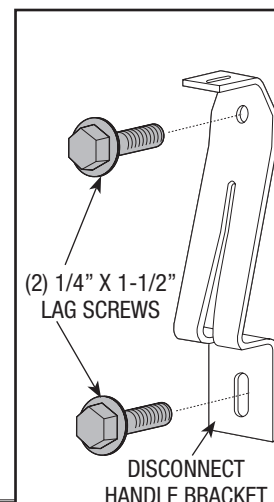
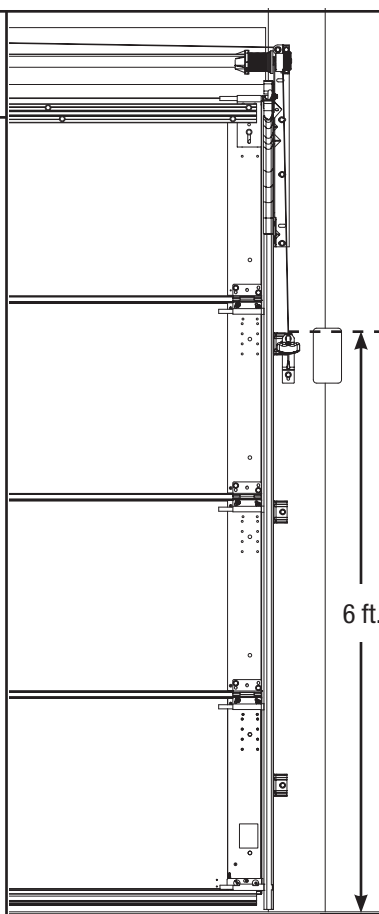
Tools Needed:
Pencil
Tape Measure
1/8" Drill Bit
7/16" Socket Driver
Power Drill

NOTE: See *i*drive® main installation and owners manual for *i*drive® parts.

Mark a location on the right jamb, 6 feet above the floor to mount the disconnect handle bracket.

Drill 1/8" pilot holes for the lag screws.

Align top of the bracket with the mark. Fasten bracket to the jamb with (2) 1/4" x 1-1/2" lag screws.



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25

Attaching Disconnect Handle

Tools Needed:

Phillips Head
Screwdriver

Wire Cutters

NOTE: See *i*drive® main installation and owner's manual for *i*drive® parts.

NOTE: Bring motor to the down position by pulling the disconnect cable. Insure opener disconnect teeth are engaged before installing disconnect handle.

Start the #6-20 x 1/2" screw into the disconnect handle. Thread the disconnect cable through the top of the disconnect handle bracket and then the disconnect handle.

Locate the disconnect handle in full upper position of disconnect handle bracket.

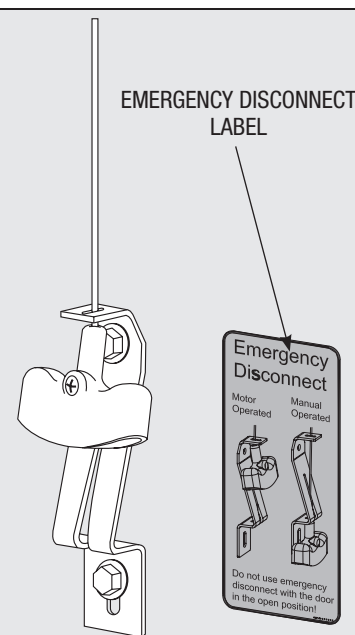
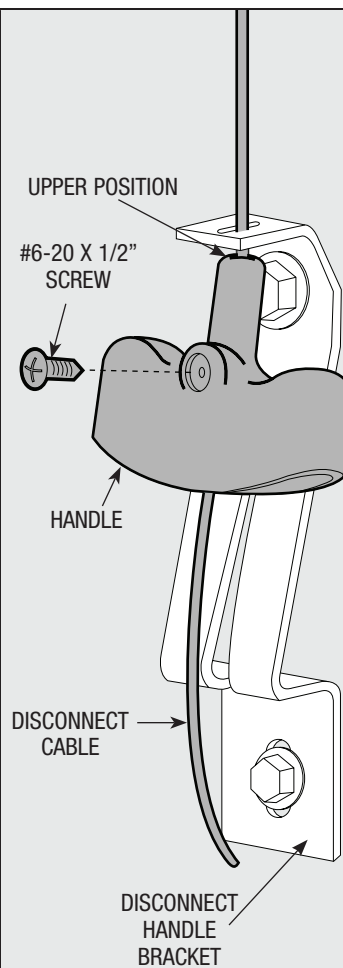
Remove all disconnect cable slack between the opener and the top of the disconnect handle bracket. Tighten #6-20 x 1/2" screw into the disconnect handle until snug, and then tighten screw an additional 1 to 1-1/2 turns to secure disconnect cable to the disconnect handle. Trim off excess cable from bottom of the disconnect handle.

CAUTION: PULL CABLE ONLY TAUT ENOUGH TO REMOVE THE CABLE SLACK. PULLING THE CABLE MORE COULD CAUSE OPENER TO DISCONNECT FROM THE TORQUEMASTER® SPRING TUBE.

Apply emergency disconnect label next to the mounted bracket. Use mechanical fasteners if adhesive will not adhere.

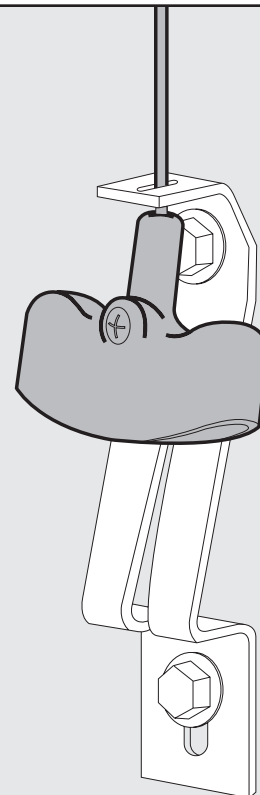
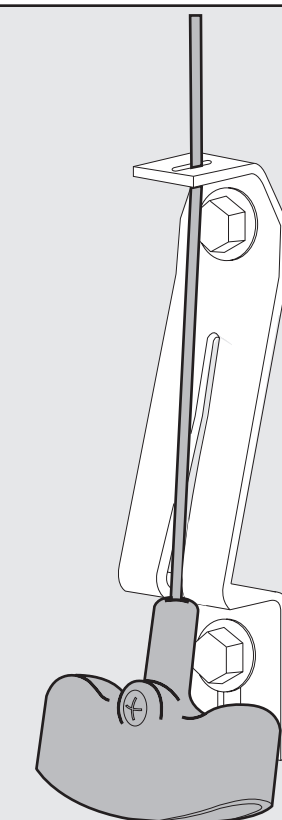
Using the emergency disconnect, pull disconnect handle downwards and place it in the manual door operated position (Use disconnect label for reference). Motor will be rotated 90° from its packaged position.

If motor does not pivot 90°, see troubleshooting section in the main installation and owners manual of your *i*drive® opener.



MANUAL OPERATED POSITION

MOTOR OPERATED POSITION



26

Securing Door for Spring Winding

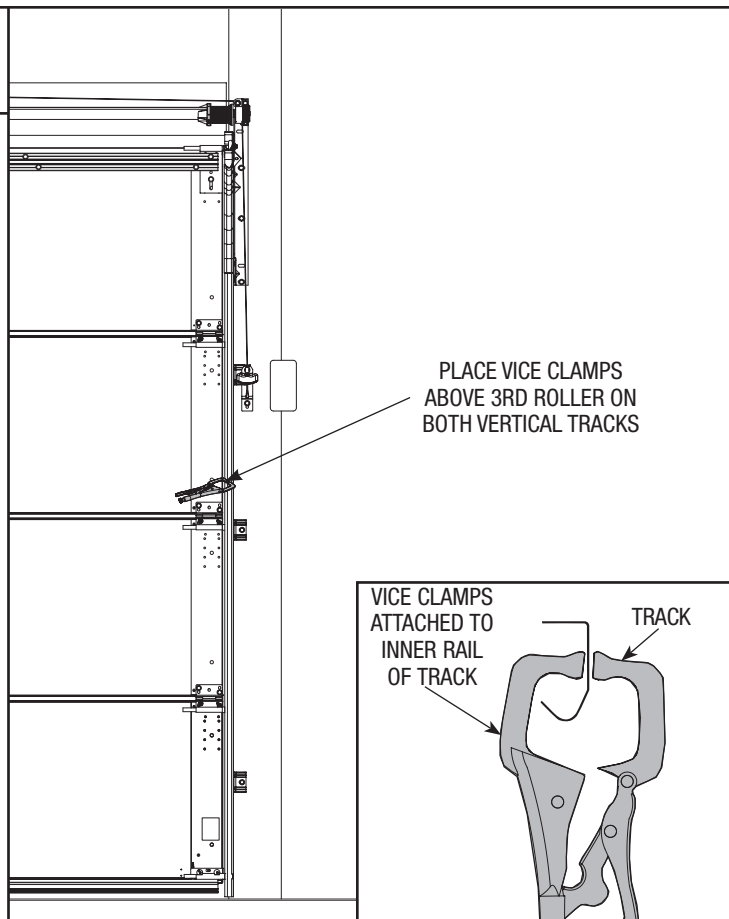
Tools Needed:
(2) Vice Clamps

Place vice clamps onto both vertical tracks just above the third roller. This is to prevent the garage door from raising while winding counterbalance springs.

⚠ WARNING

FAILURE TO PLACE VICE CLAMPS ONTO VERTICAL TRACKS CAN ALLOW DOOR TO RAISE AND CAUSE SEVERE OR FATAL INJURY.

IMPORTANT: DO NOT USE IMPACT GUN TO WIND SPRING(S).



INSTALLATION

27

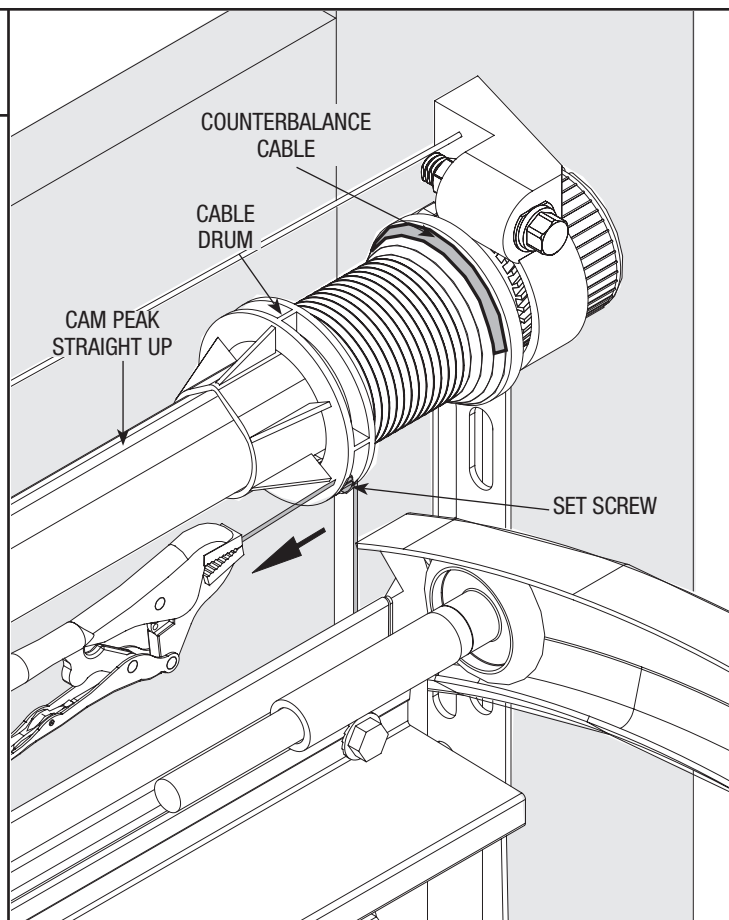
Cable Adjustments

Tools Needed:
Locking Pliers
Flat Tip Screwdriver

Rotate the cable drum until the set screw faces directly away from the header. TorqueMaster® spring tube cam peak should be pointing straight up.

Beginning with the right side, loosen the set screws approximately 2 turns, enough to adjust cable. Using locking pliers, pull on the end of the cable to remove all slack.

Check to ensure the cable is aligned and seated in the first groove of the cable drum. Snug the set screw, then tighten an additional 1-1/2 turns. Cut off excess cable.



28

Winding Bolt Rotation

Tools Needed:

Power Drill

7/16" Socket
Driver

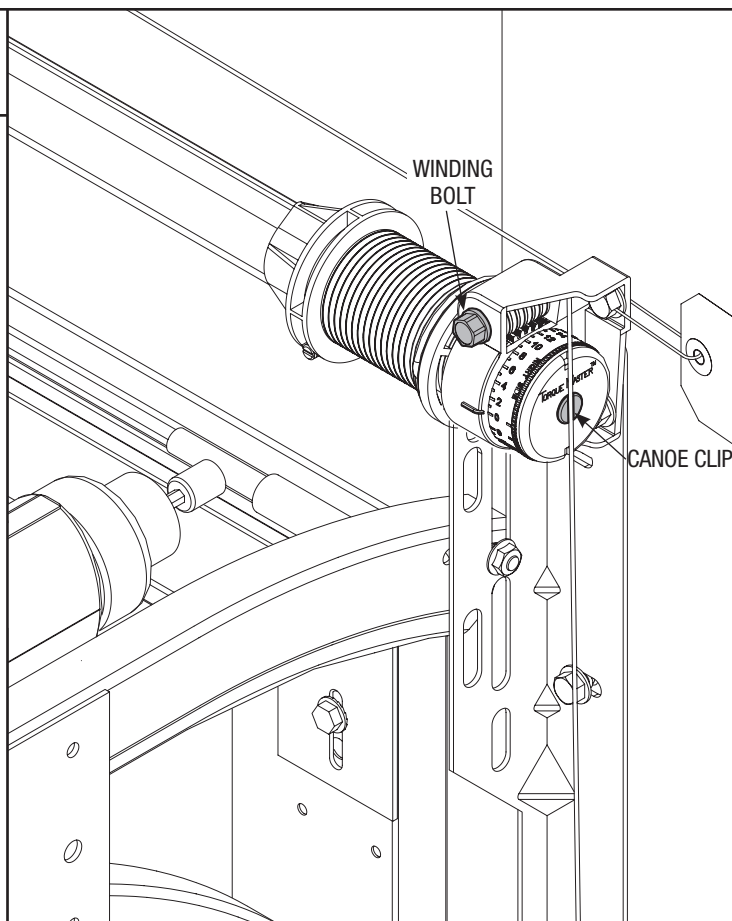
See chart in Step 29 for proper spring tension setting. Beginning with the right hand side, ensure the cable is in the first groove of the cable drum. Apply light pressure to the canoe clip on counter cover while winding springs.

⚠ WARNING

PRIOR TO WINDING OR MAKING ADJUSTMENTS TO THE SPRINGS, ENSURE YOU'RE WINDING IN THE PROPER DIRECTION AS STATED IN THE INSTALLATION INSTRUCTIONS. OTHERWISE THE SPRING FITTINGS MAY RELEASE FROM SPRING IF NOT WOUND IN THE PROPER DIRECTION AND COULD RESULT IN SEVERE OR FATAL INJURY. Using a power drill (high torque/gear reduced to 1300 RPM preferred) with a 7/16" socket, carefully rotate right hand winding bolt clockwise, until counter shows 2-3 turns. This will keep the counterbalance cable taut while adjusting the left hand side counterbalance cable. Adjust left hand counterbalance cable tension. (refer to Step 27)

NOTE: Single spring applications require no spring winding on left hand side, but need cable tension adjusted.

NOTE: Ensure counterbalance cable tension is equal for both sides prior to fully winding spring(s) to appropriate number of turns.



29

Setting Spring Tension

Tools Needed:

Power Drill

7/16" Socket
Driver

7/16" Wrench

NOTE: Apply light pressure to the canoe clip on the counter cover while winding spring(s). See the **Spring Turn** chart.

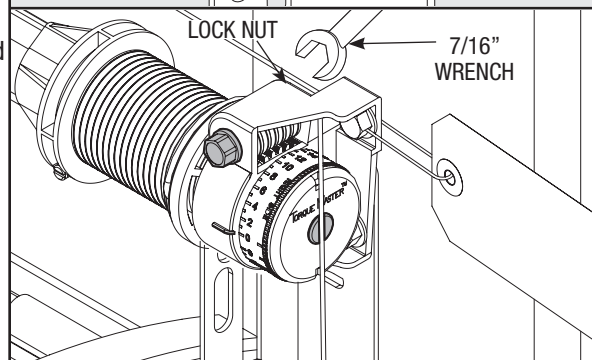
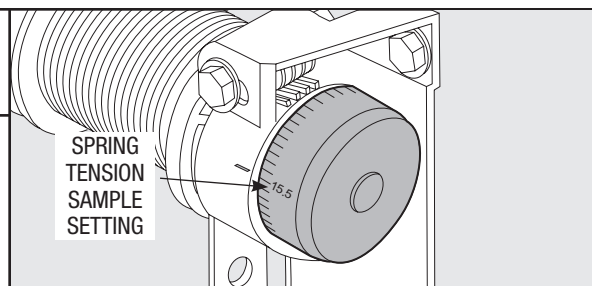
For **SINGLE SPRING** applications, return to the right hand side and carefully rotate the winding bolt head clockwise until the counter shows the correct number of turns for your door.

For **DOUBLE SPRING** applications, remain on the left hand side and carefully rotate the winding bolt head clockwise until the counter shows the correct number of turns for your door. Then return to the right hand side and wind the right hand spring to the required number of turns.

IMPORTANT: DO NOT OVERWIND.

After spring is wound, hold the lock nut (in back of end bracket) stationary on the right hand side with a 7/16" wrench while rotating the winding bolt clockwise until snug. Tightening of the lock nut prevents spring from unwinding. Repeat for opposite side for double spring TorqueMaster® systems.

IMPORTANT: CAUTIOUSLY REMOVE VICE CLAMPS FROM VERTICAL TRACKS. ADJUSTMENTS TO THE RECOMMENDED NUMBER OF TURNS MAY BE REQUIRED. AFTER REAR SUPPORT ASSEMBLY IS COMPLETE (STEP 31), CHECK DOOR BALANCE. IF DOOR RAISES OFF FLOOR UNDER SPRING TENSION ALONE, REDUCE SPRING TENSION UNTIL DOOR RESTS ON THE FLOOR. IF THE DOOR IS HARD TO RAISE OR DRIFTS DOWN ON ITS OWN, ADD SPRING TENSION. AN UNBALANCED DOOR CAN CAUSE iDRIVE™ OPERATION PROBLEMS.



NOTE: For 7' high doors, 8', 9', 10', 16' or 18' wide with windows, the recommended number of spring turns is 15.

RECOMMENDED SPRING TURNS

Door Height	iDrive® Operated Doors 11'-11" Wide or Less	Manually Operated Door, and iDrive® Operated Doors 12' Wide or Greater
8'-0"	17-1/2	18

30 Please Do Not Return This Product To The Store. Contact your local Wayne-Dalton dealer. To find your local Wayne-Dalton dealer, refer to your local yellow pages business listings or go to the Find a Dealer section **online at www.Wayne-Dalton.com**

30

Drum Wrap Installation

Tools Needed:

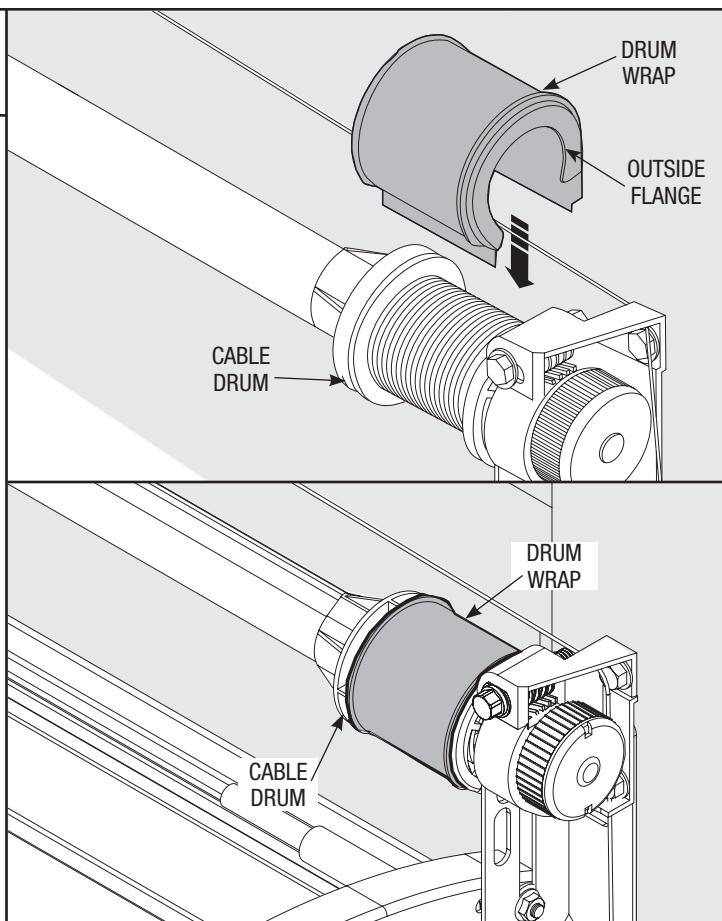
None

Drum wraps are identified as right and left hand.

To install, place the right hand drum wrap over the cable drum and under the *i*drive® disconnect cable. Align the outside flange over the outside edge of the cable drum and push the drum wrap down onto the cable drum. Repeat for left hand side.

NOTE: Drum wraps must be installed to prevent cable from becoming tangled.

IMPORTANT: RIGHT AND LEFT HAND IS ALWAYS DETERMINED FROM INSIDE THE GARAGE LOOKING OUT.



31

Rear Support

Tools Needed:

Ratchet Wrench

1/2" Socket

1/2" Wrench

(2) Vice Clamps

Level

Hammer

Tape Measure

⚠ WARNING

KEEP HORIZONTAL TRACK PARALLEL AND WITHIN 3/4" MAXIMUM OF DOOR EDGE, OTHERWISE DOOR COULD FALL, RESULTING IN SEVERE INJURY OR DEATH.

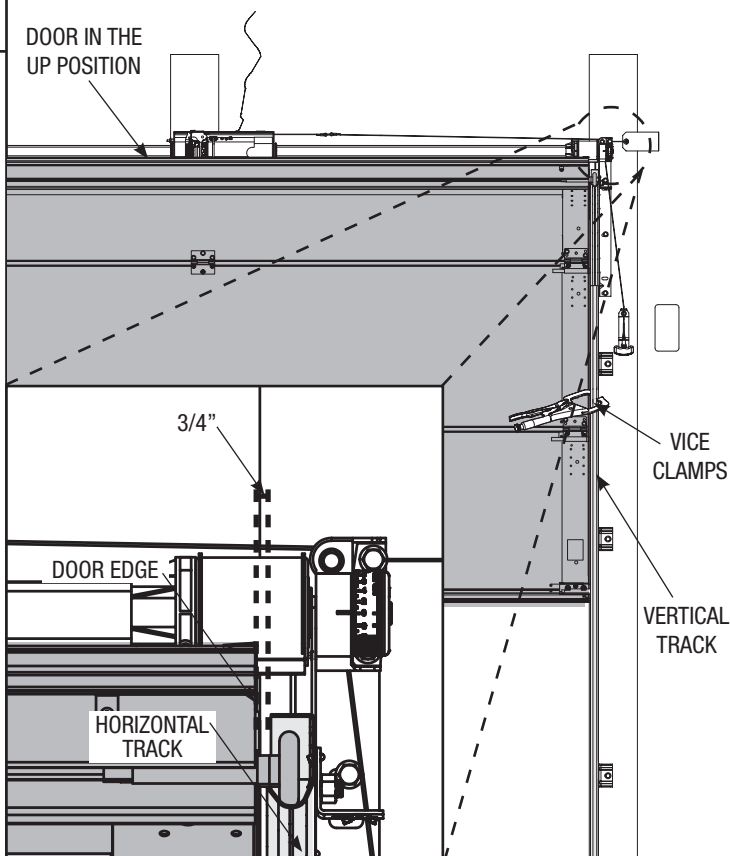
Raise the door until the top section and half of the next section are in a horizontal position. Do not raise door any further since the horizontal track are not yet supported at the rear.

⚠ WARNING

RAISING DOOR FURTHER CAN RESULT IN DOOR FALLING AND CAUSE SEVERE INJURY OR DEATH.

Clamp a pair of vice clamps on the vertical tracks just above the second roller on one side, just below the second roller on the other side. This will prevent the door from raising or lowering while installing the rear support.

Using perforated angle, 5/16" x 1-5/8" hex head lag screws and 5/16" bolts with nuts (may not be supplied), fabricate rear support for horizontal tracks. Attach



Rear Support Continued...

Tools Needed:

horizontal tracks to the rear supports with 5/16"-18 x 1-1/4" hex bolts and nuts (may not be supplied). Horizontal tracks must be level and parallel with door.

NOTE: If rear supports are to be installed over drywall, use 5/16" x 2" hex head lag screws.

NOTE: If an idrive® opener is installed, position horizontal tracks one hole above level when securing it to rear supports. Adjust weather seal or door stop (if necessary). Now permanently attach the weather seal or door stop to both door jambs and header. (They were temporarily attached in PREPARING THE OPENING on page 10.) Avoid pushing weather seal or door stop too tightly against face of door.

WARNING

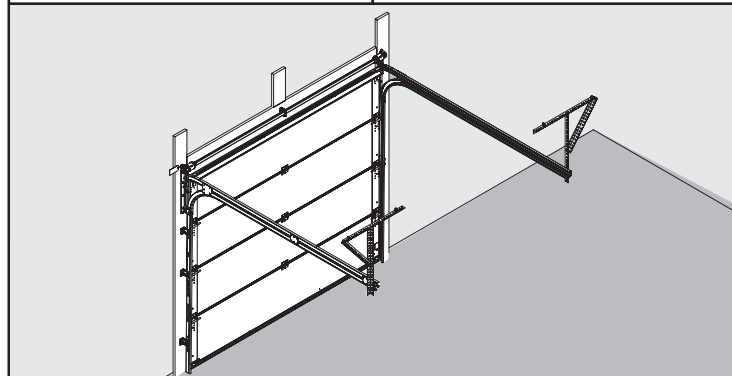
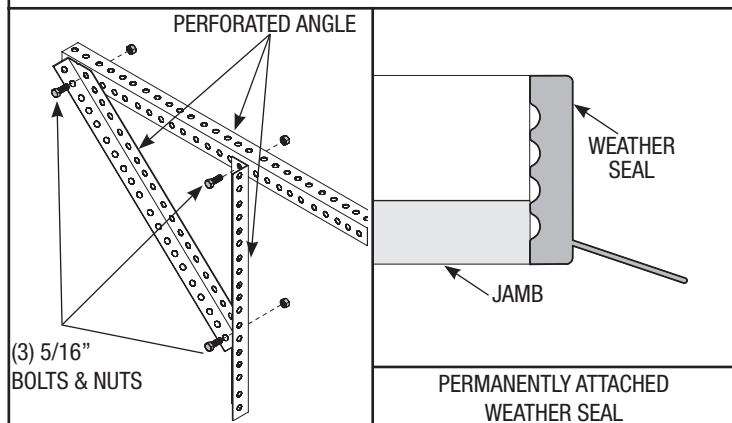
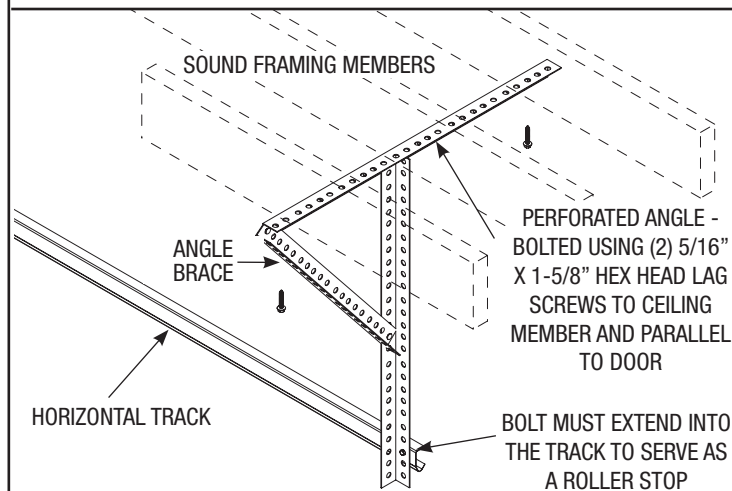
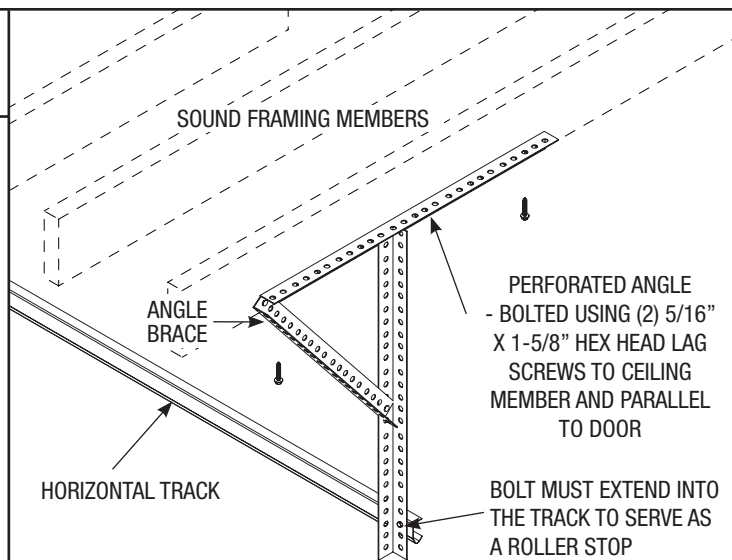
PRIOR TO WINDING OR MAKING ADJUSTMENTS TO THE SPRINGS, ENSURE YOU'RE WINDING IN THE PROPER DIRECTION AS STATED IN THE INSTALLATION INSTRUCTIONS. OTHERWISE THE SPRING FITTINGS MAY RELEASE FROM SPRING IF NOT WOUND IN THE PROPER DIRECTION AND COULD RESULT IN SEVERE OR FATAL INJURY.


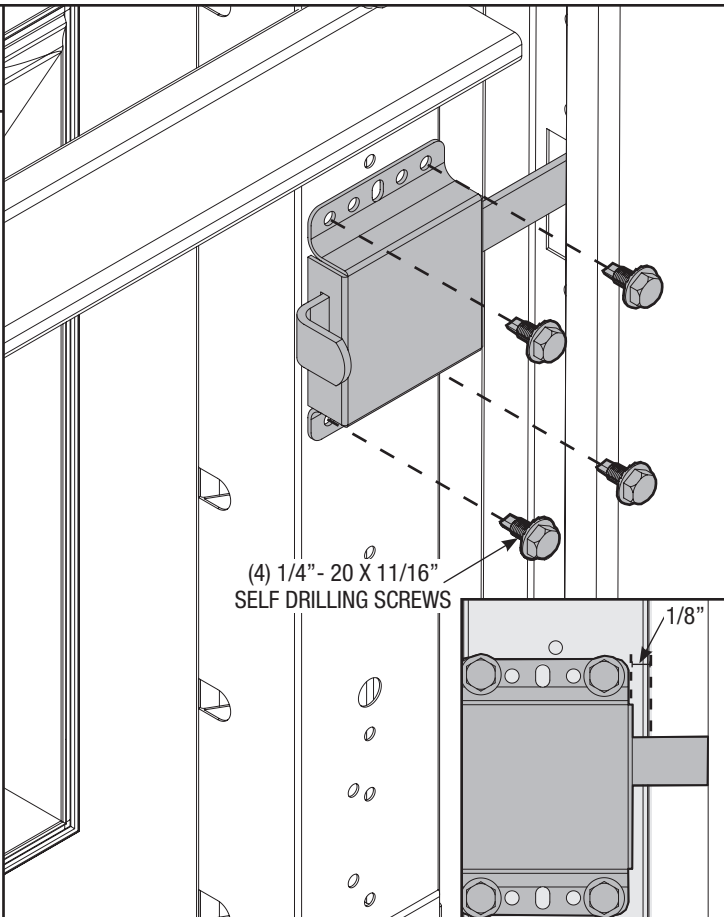
Now, lift door and check it's balance. Adjust, if door lifts by itself (hard to pull down) or if door is difficult to lift (easy to pull down). Anytime spring adjustments are made you must loosen the lock nuts before beginning adjustments. Retighten both lock nuts after completion. To adjust spring(s), only add or remove 1/4 turn on the counter at a time. Adjust both sides equally.


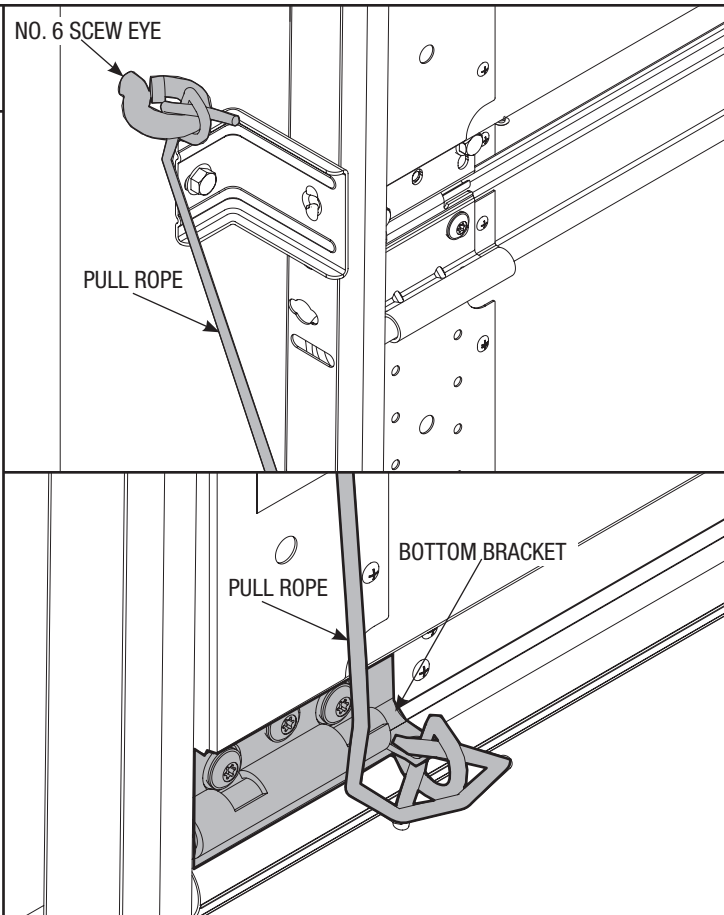
IMPORTANT: DO NOT ADD OR REMOVE MORE THAN 1 SPRING TURN FROM SPECIFIED AMOUNT. IF THE DOOR STILL DOES NOT OPERATE EASILY, LOWER THE DOOR TO THE CLOSED POSITION, UNWIND SPRING(S) TO ZERO, AND RECHECK THE FOLLOWING ITEMS:


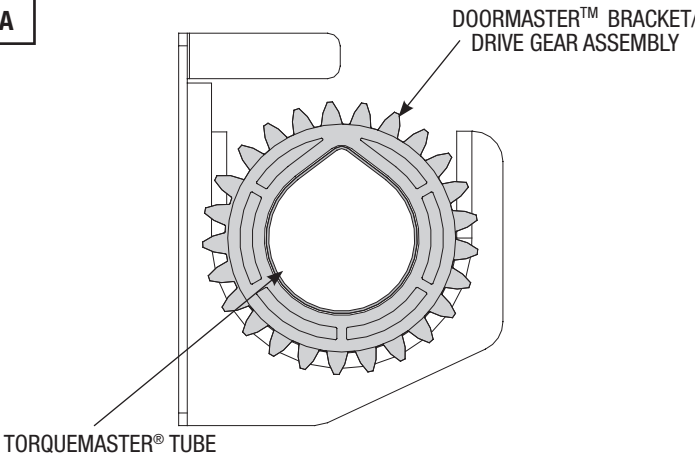
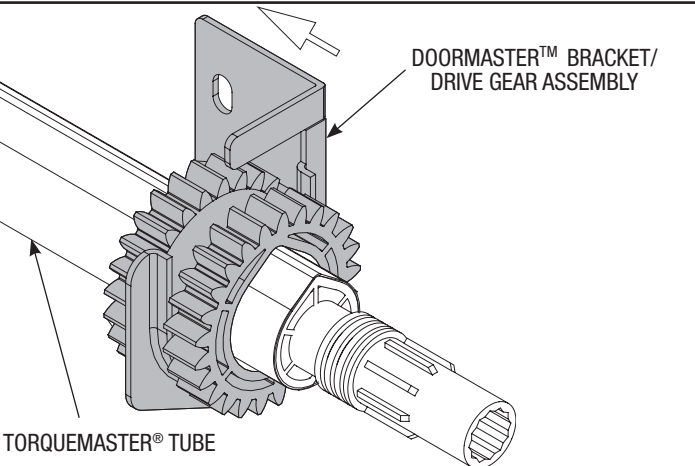
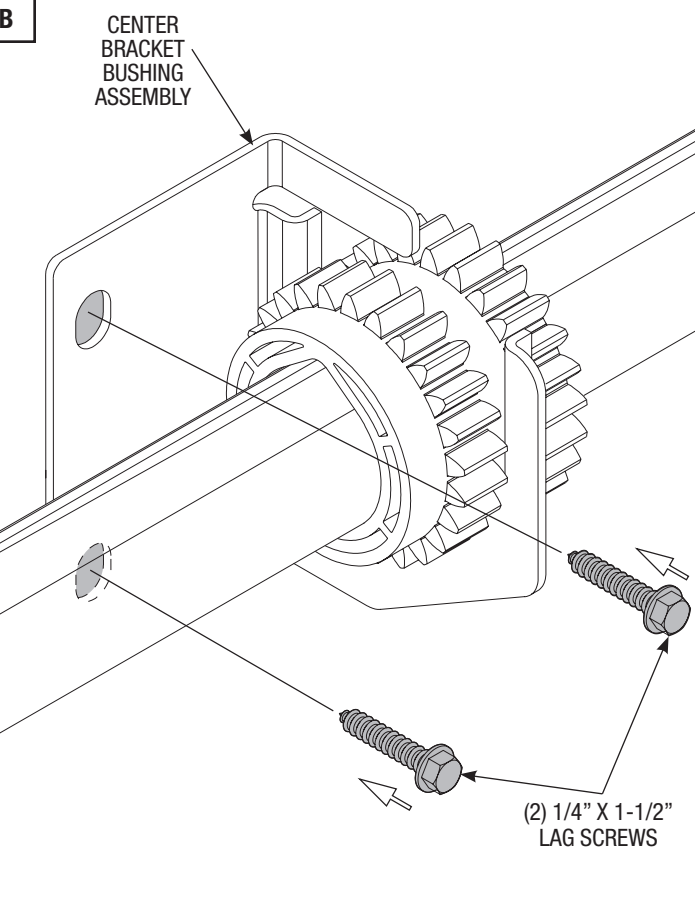
- 1.) Check the door for level.
- 2.) Check the TorqueMaster® spring tube and flagangles for level and plumb.
- 3.) Check the distance between the flagangles - must be door width plus 3-3/8" to 3-1/2".
- 4.) Check the counterbalance cables for equal tension - adjust if necessary.
- 5.) Rewind the spring(s).
- 6.) Make sure door isn't rubbing on jambs.

NOTE: As a safety feature, the right hand end bracket cannot be disassembled for service until the spring is completely unwound and the counter cover reads zero. After door installation is completed, refer to the idrive® owner's manual to complete the idrive® installation.



	<h2>Side Lock</h2>	
<p>Tools Needed:</p> <p>Power Drill</p> <p>7/16" Socket Driver</p> <p>Tape Measure</p>	<p>Install the side lock on the second section of the door. Secure the lock to the section with (4) 1/4" - 20 x 11/16" self drilling screws. Square the lock assembly with the door section and align with the square hole in the vertical track. The side lock should be spaced in approximately 1/8" from the section edge.</p> <p>IMPORTANT: SIDE LOCKS MUST BE REMOVED OR MADE INOPERATIVE IN THE UNLOCKED POSITION, IF AN OPERATOR IS INSTALLED ON THE DOOR.</p> <p>NOTE: After completing this step, continue with step 9 on page 16.</p>	

	<h2>Pull Rope</h2>	
<p>Tools Needed:</p> <p>Power Drill</p> <p>1/8" Drill Bit</p>	<p>⚠ WARNING</p> <p>DO NOT INSTALL PULL ROPES ON DOORS WITH ELECTRIC OPERATORS. CHILDREN MAY BECOME ENTANGLED IN THE ROPE CAUSING SEVERE OR FATAL INJURY.</p> <p>Measure and mark the jamb approximately 48" to 50" (1220 to 1270 mm) from floor on the right or left side of jamb. Drill 1/8" pilot hole for No. 6 screw eye. Tie the pull rope to the No. 6 screw eye and to the bottom bracket as shown.</p>	

	<h2 style="text-align: center;">DoorMaster™ Bracket</h2>	<div style="text-align: right;">A</div>  <p style="text-align: right;">DOORMASTER™ BRACKET/ DRIVE GEAR ASSEMBLY</p> <p style="text-align: center;">TORQUEMASTER® TUBE</p>
<p>Tools Needed:</p>	<div style="text-align: center;">A</div> <p>NOTE: When installing a DoorMaster™ operator use the center bracket and drive gear supplied with your operator (located in DoorMaster™ package).</p> <p>Slide the DoorMaster™ bracket/drive gear assembly onto the TorqueMaster® spring tube, so that the drive gear/center bracket assembly are in the center of the TorqueMaster® spring tube.</p> <p>NOTE: After completing this step, continue with step 17 on page 23.</p>	 <p style="text-align: right;">DOORMASTER™ BRACKET/ DRIVE GEAR ASSEMBLY</p> <p style="text-align: center;">TORQUEMASTER® TUBE</p>
<p>Tools Needed:</p> <ul style="list-style-type: none"> Power Drill 1/8" Drill Bit 7/16" Socket Driver 	<div style="text-align: center;">B</div> <p>Locate the center bracket, mark the header halfway between the flagangles and level the TorqueMaster® spring tube. Drill 1/8" pilot holes for the lag screws. Fasten the metal bracket to the header using (2) 1/4" x 1-1/2" lag screws.</p> <p>NOTE: After completing this step, continue with step 26 on page 29.</p>	<div style="text-align: right;">B</div>  <p style="text-align: right;">CENTER BRACKET BUSHING ASSEMBLY</p> <p style="text-align: right;">(2) 1/4" X 1-1/2" LAG SCREWS</p>



Trolley Operator

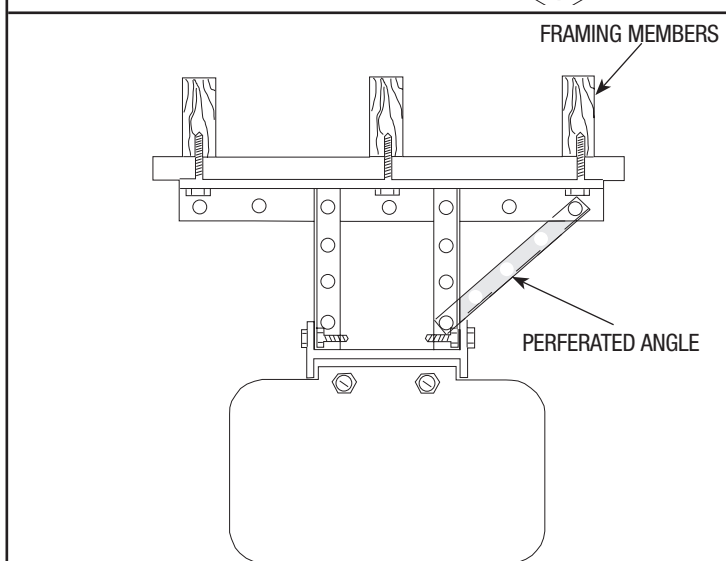
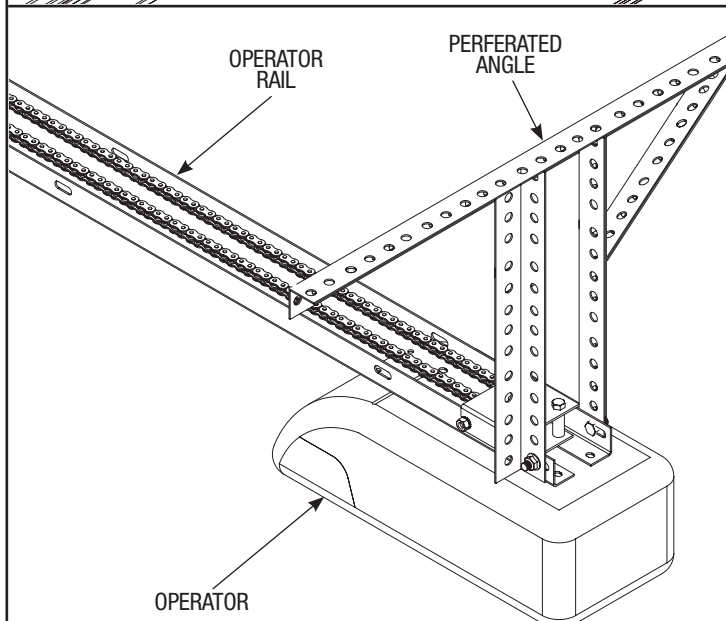
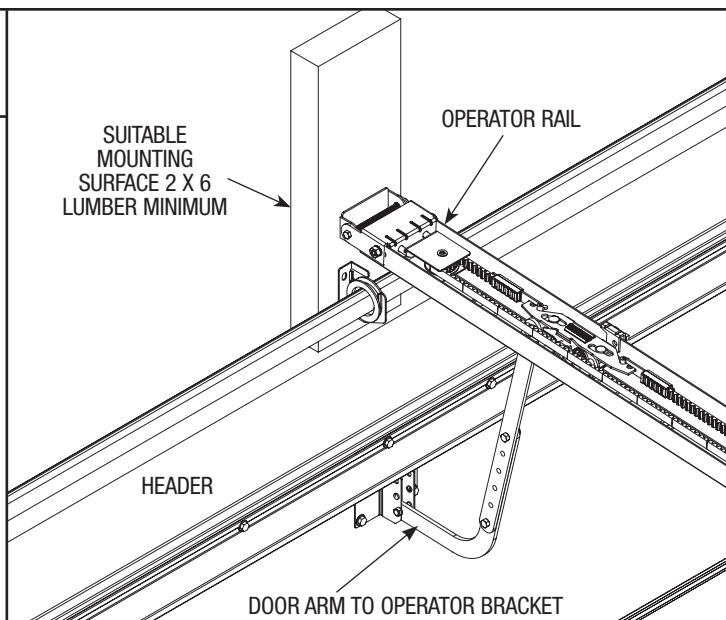
Tools Needed:

WARNING

OPERATOR MUST BE TESTED AT TIME OF INSTALLATION AND MONTHLY THEREAFTER TO ENSURE THAT DOOR REVERSES ON CONTACT WITH 2 X 4 BOARD LAID FLAT UNDER THE DOOR. FAILURE TO ADJUST OPERATOR, IF NECESSARY, CAN RESULT IN SEVERE OR FATAL INJURY. IF YOUR OPERATOR IS EQUIPPED WITH A PHOTOELECTRIC EYE SYSTEM, THEN THIS MUST BE TESTED AT THE SAME TIME TO ENSURE THAT DOOR DOES NOT CLOSE AND A CLOSING DOOR OPENS IF PHOTOELECTRIC EYE SYSTEM IS OBSTRUCTED. FAILURE TO MAKE ADJUSTMENTS, IF NECESSARY, CAN RESULT IN SEVERE OR FATAL INJURY.

1. Install operator rail 1/2" to 1" above high arc of top section of the door.
2. Mount operator to ceiling so that 1" to 1-1/2" clearance is maintained between trolley rail and top section when door is fully open (trolley rail will slope down towards rear).
3. Attach door arm to operator bracket installed in Step 9.
4. Attach operator rail to suitable mounting surface 2 x 6 lumber minimum.
5. Attach operator to ceiling using perforated angle.

IMPORTANT: ANGLES MUST BE SECURELY ATTACHED TO SOUND FRAMING MEMBER(S).



OPTIONAL INSTALLATION

Cleaning Your Steel And Fiberglass Garage Door

IMPORTANT: DO NOT USE A PRESSURE WASHER ON GARAGE DOOR!

While factory-applied finishes on garage doors are durable, it is desirable to clean them on a routine basis. Some discoloration of the finish may occur when a door has been exposed to dirt-laden atmosphere for a period of time. Slight chalking may also occur as a result of direct exposure to sunlight.

Cleaning the door will generally restore the appearance of the finish. To maintain an aesthetically pleasing finish of the garage door, a periodic washing of the garage door is recommended.

The following cleaning solution is recommended:

A mild detergent solution consisting of one cup detergent (with less than 0.5% phosphate) dissolved into five gallons of warm water will aid in the removal of most dirt.

NOTES: The use of detergents containing greater than 0.5% phosphate is not recommended for use in general cleaning of garage doors.

NOTES: Be sure to clean behind weather stripping on both sides and top of door.

CAUTION: NEVER MIX CLEANSERS OR DETERGENTS WITH BLEACH.

GLASS CLEANING INSTRUCTIONS

Clean with a mild detergent solution (same as above) and a soft cloth. After cleaning, rinse thoroughly.

ACRYLIC CLEANING INSTRUCTIONS

Clean acrylic glazing with nonabrasive soap or detergent and plenty of water. Use your bare hands to feel and dislodge any caked on particles. A soft, grit-free cloth, sponge or chamois may be used to wipe the surface. Do not use hard or rough cloths that will scratch the acrylic glazing. Dry glazing with a clean damp chamois.

NOTE: DO NOT USE any window cleaning fluids, scouring compounds, gritty cloths or solvent-based cleaners of any kind.

Steel Preparation For Painting

STEEL (SURFACE PREPARATION FOR PAINTING)

Wax on the surface must be removed or paint peeling/flaking will result. To remove this wax, it will be necessary to lightly scuff the surface with a fine steel wool pad, saturated with soapy water. A final wipe and rinse should be done with clean water only, to remove any loose particles and any soapy film residue.

Surface scratches, which have not exposed the metal substrate, can be lightly buffed or sanded with 0000 steel wool or No. 400 sand paper to create a smoother surface. Care must be taken to not expose the substrate under the paint. Once the substrate is exposed, the likelihood for rusting is greatly increased.

If substrate is exposed, it must be treated to prevent rust from forming. Sand the exposed area lightly and paint with a high quality metal primer, specifically intended for galvanized surfaces, to protect the area from corrosion. Allow for drying time on primer can label before applying topcoat.

The surface of the factory-applied finish, that is being painted, must not be too smooth, or the paint will not adhere to it. It is advisable to test in an inconspicuous area, to evaluate adhesion. If poor adhesion is observed, surface preparation for painting the factory-applied finish must be repeated until desired results are achieved. Again, care must be taken to not expose the substrate under the paint.

STEEL (PAINTING)

After surface has been properly prepared, it must be allowed to dry thoroughly, and then coated immediately with premium quality latex house paint. Follow paint label directions explicitly. Oil base or solvent base paints are not recommended. Please note that if substrate is exposed and not properly primed, painting with latex paint may cause accelerated rusting of the steel in the exposed area.

NOTES:

1. This Limited Warranty will be voided if the original finish is painted over, unless Manufacturer's preparation and painting instructions are followed explicitly.
2. Consult a professional coatings contractor if in doubt about any of the above directions.
3. Follow directions explicitly on the paint container labels for proper applications of coatings and disposal of containers. Pay particular attention to acceptable weather and temperature conditions in which to paint.

Fiberglass Refinishing And Or Finishing

Refinishing

The top coat on factory finished door may require a re-coat after 1-3 years if the surface appears chalky or faded. Reapply a top coat as follows: (Always test on a small area prior to top coating the entire door)

1. Clean surfaces with soap and water, mineral spirits or naphtha.

NOTE: Light scuffing of surface may be required using Scotch-Brite™ pads.

2. Apply a commercial brand of exterior grade top coat following the manufacturer instructions.

Finishing

It is recommended that the door be purchased pre-finished due to the size of the door, the required spray equipment and the quality problems that could result. Wayne-Dalton assumes no liability for non-factory finished doors. If finishing is performed, use exterior commercial grade finishing kits approved for use on fiberglass or commercially available exterior grade water based or oil based paint. The customer assumes all liability for the finishing.

Lifetime Limited Warranty Model 9800

Subject to the terms and conditions contained in this Lifetime Limited Warranty, Wayne-Dalton ("Manufacturer") warrants the sections of the garage door **for as long as you own the door** against:

- (i) The door becoming inoperable due to rust-through of the steel skin backer from the core of the door section, caused by cracking, splitting, or other deterioration of the steel skin, or due to structural failure caused by separation or degradation of the foam insulation.
- (ii) The door hardware (except counterbalance springs) and the tracks of the above-described door **for as long as you own the door** against defects in material and workmanship, subject to the terms and conditions below.

The exceptions to the Limited Lifetime portion of the warranty are the following, which will be warranted for a period of **three (3) years** from the date of installation against:

- (iii) Delamination of the fiberglass skin or peeling of the original factory-applied coating on the door as a result of a defect in the original fiberglass skin where the door sections and the original fiberglass skin and factory-applied coating: (a) have not been subjected to adverse atmospheric conditions or contaminants (such as salt water or other marine environment, or to toxic or abrasive substances, including those in the air); (b) have been maintained in compliance with Manufacturer's recommendations; and (c) have not been subject to physical abrasion, impacted by a hard objects, or have been punctured.
- (iv) Peeling, cracking, chalking or fading of the factory-applied coating from the time of installation. If the door is re-stained or re-painted, other than the clear coat recommendations in our instructions, the warranty for the factory-applied coating is void.

The Manufacturer warrants those component parts of the door not covered by the preceding provisions of this warranty against defects in material and workmanship for a period of **one (1) year** from the date of installation.

After a period of **twenty (20) years** from time of installation, replacement of Lifetime Limited Warranty materials will be pro-rated at 50 per cent of Manufacturer's published list pricing at time of claim, and you must pay this amount.

This Limited Warranty is extended only to the person who purchased the product and continues to own the premises (where the door is installed) as his/her primary residence ("Buyer"). This Limited Warranty does not apply to residences other than primary, or to commercial or industrial installations, or to installations on rental property (even when used by a tenant as a residence). This Limited Warranty is not transferable to any other person (even when the premises is sold), nor does it extend benefits to any other person. As a result this Limited Warranty does NOT apply to any person who purchases the product from someone other than an authorized Wayne-Dalton dealer or distributor.

The Manufacturer will not be responsible for any damage attributable to improper storage, improper installation, or any alteration of the door or its components, abuse, damage from corrosive fumes or substances, salt spray or saltwater air, fire, Acts of God, failure to properly maintain the door, or attempt to use the door, its components or related products for other than its intended purpose and its customary usage. This Limited Warranty does not cover ordinary wear.

This Limited Warranty will be voided if any holes are drilled into the door, other than those specified by the Manufacturer.

THIS LIMITED WARRANTY COVERS A CONSUMER PRODUCT AS DEFINED BY THE MAGNUSON-MOSS ACT. NO WARRANTIES, EXPRESS OR IMPLIED (INCLUDING BUT NOT LIMITED TO THE WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE) WILL EXTEND BEYOND THE TIME PERIOD SET FORTH IN UNDERScoreD BOLD FACE TYPE IN THIS LIMITED WARRANTY, ABOVE.

- Some States do not allow limitations on how long an implied warranty lasts, so the above limitations may not apply to you.

Any claim under this Limited Warranty must be made in writing, within the applicable warranty period, to the dealer from which the product was purchased. Unless the dealer is no longer in business, a written claim to the Manufacturer will be the same as if no claim had been made at all. At the Manufacturer's option, pursuant to the dealer having notified the Manufacturer of a warranty claim, a service representative may inspect the product on site, or Buyer may be required to return the product to the Manufacturer at Buyer's expense. Buyer agrees to cooperate with any representative of the Manufacturer and to give such representative full access to the product with the claimed defect and full access to the location of its installation.

If the Manufacturer determines that the claim is valid under the terms of this Limited Warranty, the Manufacturer will cause the defective product to be repaired or replaced. The decision about the manner in which the defect will be remedied will be at the discretion of the Manufacturer, subject to applicable law. **THE REMEDY WILL COVER ONLY MATERIAL. THIS LIMITED WARRANTY DOES NOT COVER OTHER CHARGES, SUCH AS FIELD SERVICE LABOR FOR REMOVAL, INSTALLATION, PAINTING, SHIPPING, ETC.**

Any repairs or replacements arranged by Manufacturer will be covered by (and subject to) the terms, conditions, limitations and exceptions of this Limited Warranty; provided that the installation date for the repaired or replaced product will be deemed to be the date the original product was installed, and this Limited Warranty will expire at the same time as if there had been no defect. If a claim under this Limited Warranty is resolved in a manner other than described in the immediately preceding paragraph, then neither this Limited Warranty nor any other warranty from the Manufacturer will cover the repaired or replaced portion of the product.

THE REMEDIES FOR THE BUYER DESCRIBED IN THIS LIMITED WARRANTY ARE EXCLUSIVE and take the place of any other remedy. The liability of the Manufacturer, whether in contract or tort, under warranty, product liability, or otherwise, will not go beyond the Manufacturer's obligation to repair or replace, at its option, as described above. THE MANUFACTURER WILL NOT UNDER ANY CIRCUMSTANCES BE LIABLE FOR SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES, including (but not limited to) damage or loss of other property or equipment, personal injury, loss of profits or revenues, business or service interruptions, cost of capital, cost of purchase or replacement of other goods, or claims of third parties for any of the foregoing.

- Some States do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

No employee, distributor, dealer, representative, or other person has the authority to modify any term or condition contained in this Limited Warranty or to grant any other warranty on behalf of or binding on the Manufacturer, and anyone's attempt to do so will be null and void.

Buyer should be prepared to verify the date of installation to the satisfaction of the Manufacturer.

The rights and obligations of the Manufacturer and Buyer under this Limited Warranty will be governed by the laws of the State of Ohio, USA, to the extent permitted by law.

- This Limited Warranty gives you specific legal rights and you may also have other rights, which may vary from State to State.

Thank you for your purchase
www.Wayne-Dalton.com

Covered by one or more of the following Patents; 5,408,724; 5,409,051; 5,419,010; 5,495,640; 5,522,446; 5,562,141; 5,566,740; 5,568,672; 5,718,533; 6,019,269; 6,089,304; 6,644,378; 6,374,567; 6,561,256; 6,527,037; 6,640,872; 6,672,362; 6,725,898; 6,843,300; 6,915,573; 6,951,237; 7,014,386; 7,036,548; 7,059,380; 7,121,317; 7,128,123; 7,134,471; 7,134,472; 7,219,392; 7,254,868. Canadian: 2,384,936; 2,477,445; 2,495,175; 2,507,590; 2,530,701; 2,530,74; 2, 2,532,824. **Other US and Foreign Patents pending.**

38 Please Do Not Return This Product To The Store. Contact your local Wayne-Dalton dealer. To find your local Wayne-Dalton dealer, refer to your local yellow pages business listings or go to the Find a Dealer section **online at www.Wayne-Dalton.com**